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ABSTRACT

A study examined the effectiveness of the cooperative training component of the vocational/technical programs at 30 junior and community colleges and technical institutes throughout Texas. Data were collected from 353 cooperative education students (of 445 contacted), 108 coordinators (of 160 contacted), and 121 work site supervisors (of 488 contacted). Cooperative education was found to be active and functioning in Texas postsecondary institutions and to command a positive attitude from students, coordinators, and supervisors. A wide variation was found among cooperative education components at individual campuses and among programs within campuses. Few state guidelines exist for cooperative education, and those that have been delineated by the Texas Education Agency (TEA) have not been implemented at certain times and in certain institutions. Therefore, the goals of postsecondary cooperative education in Texas should be reexamined, and appropriate state guidelines should be developed. (Appendixes include a glossary; TEA program standards; list of advisory committee members; map showing the distribution of study participants; pilot study evaluation forms; study-related correspondence; worksite supervisor, coordinator, and student questionnaires; and evaluation of the study results, conclusions, and recommendations.) (MN)

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Final Report

Contract Number 851/6/3/85-040

EFFECTIVENESS OF COOPERATIVE TRAINING COMPONENT IN POSTSECONDARY VOCATIONAL/TECHNICAL PROGRAMS

By

Donna Hines

Occupational Curriculum Laboratory
East Texas State University

The project reported herein was performed through a contract with the Texas Education Agency under the provisions of the Vocational Education Amendments of 1976 (Public Law 94-482). Contractees undertaking such projects are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Texas Education Agency position or policy.

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TEXAS EDUCATION AGENCY

Department of Occupational Education and Technology

Research Coordinating Unit

Austin, Texas

1986

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Acknowledgements

Appreciation is extended to the Texas Education Agency, Research Coordinating Unit, Department of Occupational Education and Technology for providing funds to conduct this research project. Special credit is given to Carol Edwards, Occupational Education Specialist, and to the Division of Postsecondary Programs for their direction and leadership in initiating this project. Assistance and guidance to the project were provided by Dr. Claudia Moore, Program Director of the Coordinating Board, Texas Colleges and University System. Appreciation is also extended to Dr. James W. Tunnell, ETSU professor, who served as consultant for the project.

In addition, many individuals contributed their time, experience, and expertise to the development of this research project. A Project Advisory Committee helped with the research design and reviewed all phases of the project. Their assistance was invaluable to the completion of the project. The following educators and business people served on the Project Advisory Committee:

Howie Katz
College of The Mainland
Texas City, Texas

Irving Panzer
Houston Community College
Houston, Texas

Irma Jones
Texas Southmost College
Brownsville, Texas

Jerry Zavesky
Victoria College
Victoria, Texas

Patsy Flowers
Houston Community College
Houston, Texas

Michael Ross
Dallas County Community
College District
Dallas, Texas

Jerry Massa
Mastic Corporation
Denison, Texas

Donald G. Sellers
Williamson-Dickie
Apparel Mfg.
Uvalde, Texas

Rick Matthews
Matthews Air-
Conditioning
Corpus Christi, Tx

Sycily Lattimore
Black River Nursery
Levelland, Texas

Lindsay King
H & W Supply
Corsicana, Texas

Barbara Pickelman
San Luis Hotel
Galveston, Texas

Dr. Ruth McQueen
Amarillo College
Amarillo, Texas

James K. Henderson
North Harris County
Community College
Houston, Texas

Shep Kohler
Alliance
Manufacturing Co.
San Antonio, Texas

In addition to the advisory committee, a selected group of cooperative education coordinators served on the Review Committee. Special thanks is directed to these dedicated educators who volunteered their time for this project. A complete list of those who served on the project is included in Appendix C.

Appreciation is also extended to the staff members of the Occupational Curriculum Laboratory for their assistance, input, and encouragement during the operation of the research project.

Preface

The Occupational Curriculum Laboratory was created as a curriculum development center, but over the years it has taken on both research and professional development projects. The unique organization provided by the curriculum projects as a base allows the OCL to be competitive when adding extra projects to its operational base.

This study entitled, "Effectiveness of the Cooperative Training Component in Postsecondary Vocational/Technical Programs," was conducted using cooperative education participants in the state as the population. Many interesting findings are documented in the findings indicating strong co-op programs but wide discrepancies within operation and administration across the state.

Through the cooperation and assistance of the occupational deans and directors in Texas community colleges, cooperative education coordinators, and the Project Advisory Committee, the OCL staff received a wide range of quality input which is reflected in this final report. The staff of the project: Donna Hines, Project Facilator, and Patricia McCommas, Graduate Assistant, worked long and diligently to compile this material into a usable final report.

It is our belief that this final report can be used as a base for the development and improvement of postsecondary cooperative programs in the State of Texas. We, the staff of the OCL, appreciate the opportunity to conduct this study.

Bill Barnes, Ph.D.
Director
Occupational Curriculum Laboratory

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Introduction

College-level cooperative education programs have been in existence for more than 75 years. Such programs are identified strongly with popular American concepts such as "working one's way through college," and "learning by doing" and have a high degree of acceptance among educators, students, and the general public. Cooperative programs grew rapidly in the 1960s and 1970s until programs numbered about 950 and included in excess of 190,000 students. Yet, despite this high degree of acceptance, cooperative education still only encompasses a very small minority of American college students and relatively few employers as active participants, as concluded by the national Assessment of Cooperative Education. This study was conducted in 1975-77 to determine the degree to which cooperative education is a viable educational and/or financial aid mechanism for institutions of higher education to adopt. Its second purpose was to determine the effectiveness of the federal role in supporting cooperative education through Title IV-D of the Higher Education Act. A subsequent study was organized by Northeastern University (Boston) entitled The Assessment of Cooperative Education Learning Objectives and was completed in 1984. The objectives of this three-year project were to provide information on educational outcomes of cooperative education programs throughout North America, to provide institutions with evaluation measures for both individual co-op students and cooperative education programs, and to provide for the evaluation of cooperative education work experience as a basis for awarding and transferring academic credit.

A preliminary survey of Texas junior/community college catalogs indicated the existence of cooperative programs in more than 75 academic and vocational subject areas. The diverse content of these programs makes it difficult to compare and evaluate cooperative training. However, certain elements and objectives should be common to all cooperative programs; these include use of training plans and instruction in human relations skills, work habits, and attitudes. The question was proposed, "Are Texas postsecondary cooperative education programs helping students gain experience in order to become more marketable in the labor force?"

Numerous research projects have been conducted to study the objectives, content, influence, and effectiveness of cooperative programs at the national, state, and local levels. The Texas Education Agency identified a need to research the effectiveness of cooperative training components in Texas postsecondary vocational/technical programs

to evaluate the benefit of co-op experiences to students' educational goals, and to examine follow-up studies of Students who participated in cooperative education. Information from this research project was used to make recommendations concerning the continuation, deletion, or improvement of cooperative training components of postsecondary vocational/techical programs.

Significance of the Project

Data gathered as a result of this project can have several important implications to cooperative education in Texas postsecondary institutions. Descriptive data gathered by means of a survey of cooperative education students, coordinators, and work-site supervisors from 30 junior/community colleges and technical institutes provide information concerning the state of the art of Texas postsecondary cooperative education. Data from this comprehensive survey, the analysis of existing follow-up studies, and the review of literature indicate the need for state-level goals and guidelines for postsecondary cooperative education. Standardized terminology and procedures would facilitate better communication and understanding among colleges and between colleges and the governing agency. The implementation of cooperative education guidelines would also facilitate more efficient, statewide articulation of students among postsecondary institutions.

Objectives

The staff of the Division of Postsecondary Programs at the Texas Education Agency recognized the need to research the effectiveness of the cooperative training component in postsecondary vocational/technical programs. The TEA Occupational Education Specialist, Carol Ann Edwards, and members of the Division of Postsecondary Programs identified needs relevant to cooperative education using a statewide needs assessment and input from postsecondary faculty and administrators. As a result, a Request for Applications (RFA) was developed outlining a project with the following objectives:

1. Determine the effectiveness of cooperative training components in relation to the overall educational goal of the student using the following criteria:

   A. Guidelines delineated in the TEA Guide for Occupational and Technical Education in Postsecondary Institutions of Texas,

B. Evaluation from cooperative training supervisors, instructors, and students,

C. Existing follow-up studies of students formerly enrolled in cooperative education.

2. Information from this project will be used to make recommendations to the Texas Education Agency regarding any needed changes in cooperative education at the postsecondary level as identified by the research.

3. A comprehensive final report will be prepared which will include the recommendations of this project.

Procedures

In compliance with state RFA procedures, the Occupational Curriculum Laboratory was awarded a contract to determine the effectiveness of the cooperative training component in relation to the overall educational goal of the student as outlined by TEA specifications. The following research procedures were used and are explained in detail in this section: review of literature, selection and responsibilities of the of advisory committees, research design utilizing survey instruments, analysis of data, and preparation of reports. Dr. James Tunnell served as consultant to the project. He is a professor at East Texas State University in the department of Secondary and Higher Education, with emphasis on community college programs.

Review of the Literature

A review of the literature was conducted to identify information and data pertinent to the project. An online computer search of the ERIC data base was initiated in August and September utilizing the East Texas State University (ETSU) library research facilities. General topics for the searches included: cooperative education, internship, work experience, college programs, guidelines, and questionnaire design. A large number of ERIC documents and journal articles were identified, many of which were reviewed on microfiche, hard copies were made, and, in some cases, hard copies were purchased from the publisher or originating institution. A complete listing of resources and information used in the project is located in the bibliography. A glossary has been provided in Appendix A to clarify terms as they are used in this report.

The review yielded information on the historical background, growth and development of cooperative education; goals and objectives; benefits to students, the college, the employer, and the community; and specific operational procedures. A brief summary of each of these topics is presented here; source material relied heavily on information from Humbert and Woloszyk (1983), National Child Labor Committee (1983), and Heinemann, et al. (1982). In addition, state and local materials were reviewed and used as resource information.

Historical Background

The value of practical work experience for vocational training has long been recognized. Dating back to colonial America, apprenticeship systems provided training for a

variety of craft workers in formal and informal settings. Such programs became more structured, and components such as supervised training sites, written training agreements, and related formal instruction were added. Over the years apprenticeship systems evolved into modern cooperative education. The first formal program was offered to engineering students at the University of Cincinnati in 1906, and secondary co-op programs were established soon after in 1909 in Fitchburg, Massachusetts. Programs were established in other engineering departments of other universities, and in 1921 spread to liberal arts curricula. Up until 1960, however, there was very little expansion, and only 65 institutions offered cooperative education.

The influence of the National Commission for Cooperative Education (NCCE) under the direction of Ralph W. Tyler had a tremendous impact on cooperative education. With support from the federal government, cooperative education increased after the passage of the Vocational Education Act (1963) and the Higher Education Act (1965). By 1970 the number of colleges offering co-op grew to more than 200; by 1980 over 1,000 programs were in operation, 46 percent of which were in junior/community colleges. The awareness of the needs for and benefits of cooperative education at the postsecondary level has become widely accepted in recent years. Currently about 900 colleges nationwide enroll nearly 200,000 students in a variety of academic and vocational programs that implement co-op components. Specifically in the state of Texas for the fiscal year 1984, 7,962 students were enrolled in postsecondary and adult cooperative education programs.

Goals and Objectives of Cooperative Education

As offered in high schools and colleges in the United States, cooperative education provides students from the 11th grade through graduate school with opportunities to integrate classroom theory with practical work experience. This is done in an organized instructional delivery system that combines work-related learning experiences from the community with occupationally oriented instruction at the educational institution. The combination of these two types of learning experiences contribute to students' education and employability. Cooperative education in each academic or vocational program takes on the philosophy, goals, objectives, and format of the particular discipline. Common factors across program fields include specific periods of school attendance and employment (either parallel or alternating), coordination between school and training site, related course work to reinforce training-site objectives and vice versa.

Traditionally, cooperative education has been intended to provide work experience and skills training for young and inexperienced workers. This idea is specifically stated in the TEA Vocational Education Accountability Report for Fiscal Year 1984:

> The primary objective of cooperative vocational education is to prepare persons 16 to 21 years of age for employment by combining a meaningful work experience with formal education. Work experience in a supervised work environment provides the skills and attitudes necessary to function successfully on the job while formal education provides general and specific knowledge about various occupations.

Benefits of Cooperative Education

Implementation of cooperative education as a component of vocational programs provides a number of benefits to students, the college, the employer, and the community. Empirical research has identified many benefits, and such concepts are widely accepted by students, educators, and employers. A summary of the major benefits of cooperative education is listed in the following four categories:

Benefits to Students:

Provides realistic learning experiences and on-the-job training in the real world of work.

Helps students develop work-related habits and attitudes, human relations and leadership skills, feelings of independence and self-confidence.

Co-op training provides relevancy, meaning, and purpose to the classroom instruction which increases student motivation, retention, and/or return to school.
Provides specific skill training in a chosen occupation.

Provides financial reward for the co-op experience.

Assists students with the transition from the school environment to employment and in making knowledgeable career choices.

Students obtain regular employment more quickly upon completion of co-op programs than do other students.

Benefits to the College:

Improves communication and linkage between the educational institution and business/industry.

Provides opportunities for instructors/coordinators to keep current with state-of-the-art procedures, technology, equipment, and facilities.

Provides state-of-the-art laboratory learning environments that the school may not be able to afford.

Provides opportunities for public relations and increased support of vocational education.

Benefits to the Employer

Provides willing, part-time workers who are anxious to learn and take responsibility.

Brings employers into the educational process and allows them to have input into programs that prepare students for work.

Reduces the time and cost of training new workers when co-op students are hired as regular employees and also reduces turnover.

Improves employers' ability to recruit competent, qualified minority and economically disadvantaged workers. At times, federal legislation, such as the Targeted Job Tax Credit (TJTC), can provide financial benefit to employers for hiring such co-op students.

Benefits to the Community:

Increases the pool of skilled workers in the community.

Reinforces the image of business concerned with social and economic conditions of the community.

Reduces the number of school dropouts and public and employer costs for remediation and special training.

Cooperative education shows a higher rate of return on the investment of federal money than do other types of vocational education. Capital costs for the school are lower.

Cooperative Education Operational Procedures

The literature identifies five functional areas for cooperative education: administration, coordination, guidance, professional development, and public relations.

The first three of these will be briefly considered here. Total operation of cooperative education components would involve much more.

Administration. Administration involves aspects such as planning, implementing, and operating cooperative education programs; these have been well documented by research. Planning includes needs assessments, cost analyses, selecting and working with advisory committees, and developing an organizational plan. Based on input from the planning component, programs are implemented by working though local and state procedures for establishing programs. Reporting also comes under the area of administration. The Vocational Education Amendments of 1976 require that follow-up surveys be conducted annually for completers and leavers of vocational education programs. Such data collected at the local level is compiled into an annual state report. Information from vocational follow-up surveys could easily be adapted to provide a reporting mechanism for the accomplishments of cooperative education as well.

Coordination. Coordination is the process of integrating the activities of administration, instruction, and job-site training to serve the needs of students. Coordination can be classified as essential elements or supportive services. It is this function of coordination that is unique to cooperative education, and as a result a coordinator is usually appointed to oversee the activities and operation of cooperative education. The coordinator fills the following roles: administrator, recruiter, mediator, placement specialist, public relations and salesperson, teacher, troubleshooter, and vocational counselor.

Guidance. Guidance relates to the many activities and services that deal with students: recruitment, selection, orientation and placement of students; educational guidance and career counseling; development of training plans and objectives; evaluation of students' progress; maintenance of permanent records; and follow up of former students. In cooperative education, emphasis is placed upon the importance of individualization in serving students' needs. This is particularly necessary when dealing with special needs populations. The literature reports efforts to enroll females, members of racial minority groups, disadvantaged, and handicapped students, but emphasizes the continuing need to coordinate services for these students with employers. Several suggestions for serving the needs of special groups are listed below:

Ensure that the program operates responsive outreach and recruitment programs.

Ensure that guidance practices provide all students with the assistance necessary for making intelligent, informed occupational choices.

Develop effective communications with special populations and devise means for improving their perception of their potential.

Provide educators with information to increase their awareness of their role in making vocational education available to all students and how to deal with the special problems encountered when working with such students.

Review of State and Local Documents

Documents from the Texas Education Agency (TEA) were valuable to the operation of this research project. In particular, TEA guidelines for cooperative education from the Guide for Administration of Postsecondary Occupational Education and Technology Programs in Texas, 1977, were used as a basis for determining effectiveness based on adherence to state guidelines. Copies of these guidelines are located in Appendix B and were used as a foundation to develop the questions on the survey instruments.

Other TEA documents were collected and reviewed to ascertain information on follow-up studies: data from the Vocational Education Data System (VEDS) published in December, 1984; Vocational Education Evaluation System, (VEES) 1984-85; Summary Report of 1983-84 Vocational Education Evaluation System Data, May 1985; and follow-up data from local institutions. Analysis of this information is presented later in this section.

In addition, advisory committee members provided information, brochures, and student/employer handbooks from local cooperative programs. Mid-Management programs had an Instructor/Coordinator's Handbook for Marketing and Distribution Programs developed in 1981 by Dr. Doyle Holder through a grant from TEA. This handbook contains complete information for the organization and operation of Mid-Management programs, including TEA guidelines for the cooperative component of this vocational program. Following is a listing of local handbooks that were available to the project; others undoubtedly have been published.

College of the Mainland:
Division of Business Cooperative Education, Student Document
Criminal Justice Cooperative Education

El Paso Community College:
Cooperative Education Student Handbook
Cooperative Education Instructor/Coordinator's Handbook
Cooperative Education Employer Handbook

Galveston College:
Cooperative Education Student Guide

Houston Community College
Field Experience in Fashion Merchandising

Navarro College:
Business Division Job Practicum Business Co-op Guidelines

San Antonio College:
Cooperative Education Student Guide
Cooperative Education Employer Handbook

Much has been written concerning the various aspects of cooperative education, and much can be learned from previous research on this topic. Only a small portion of what is available has been covered in this brief summary of cooperative education. It has been presented, however, to give the reader some background for the ideas presented in this final report. The review of the literature was an integral part of this project and proved very helpful in preparing the survey instruments and developing the conclusions, implications, and recommendations.

Advisory Committees

To ensure relevance and effective evaluation, advisory and review committees were appointed to work with the project. The Project Advisory Committee (PAC) consisted of eight educators and seven business people knowledgeable of postsecondary cooperative education. Their responsibilities included input for project design, development of survey instruments, and review of materials produced. A 40-member review committee was also appointed to provide broader review and validation of the survey instrument and assisted with the identification of those who participated in the statewide survey. Working through the project facilitator, these two committees validated materials and assisted in the survey. A complete listing of PAC and Review Committee members is included in Appendix C, and a map showing the statewide representation is illustrated in Appendix E.

Project Advisory Committee

Using input from the TEA Occupational Education Specialists in the Division of Postsecondary Programs, the project consultant, and the project facilitator, a Project Advisory Committee (PAC) was appointed. They were selected for their knowledge and expertise in the area of cooperative education, their past service on advisory committees, and their willingness to serve. Members of the PAC represented experienced cooperative education coordinators and business people knowledgeable of cooperative education representing the following postsecondary institutions:

Amarillo College
College of the Mainland
Dallas County Community College, District Office
Galveston College
Grayson County College
Houston Community College
Navarro College
North Harris County College
South Plains College
Saint Phillips College
Texas Southmost College
Victoria College

Review Committee

In addition to the Project Advisory Committee, a Review Committee was appointed to assist with the identification of the survey populations and the administration of the survey. A total of 81 occupational/technical deans from all Texas postsecondary institutions were contacted and asked to recommend a person to represent their particular college on the Review Committee. Eighty-three percent of the deans responded which resulted in 40 recommendations for this committee. Of those, 32 accepted the assignment to serve on the committee.

PAC Meeting

The Project Advisory Committee (PAC) met on September 30, 1985, at the North Park Inn in Dallas, with all members present, plus the director of the Occupational Curriculum Laboratory, Dr. Bill Barnes, and the project consultant, Dr. James Tunnell. The meeting was was conducted by the project facilitator, Donna Hines. After an orientation to the project, the group discussed the research design of the project and reviewed the proposed survey instruments. The survey had been originally planned for January, 1986; however,

members of the PAC pointed out that January falls at the beginning of a new semester, and new co-op students would probably not be familiar with procedures. Therefore, the survey date was moved to late November, 1985, the end of the fall semester. An accelerated time schedule was established to develop the survey instruments, field review them with the PAC and Review Committee, pilot test them with co-op students, collect names and addresses of participants, and conduct the survey. The group discussed whether to send questionnaires directly to students through the mail or to ask coordinators to administer the survey through their seminar classes. Even though some felt administering the survey through seminar classes would bias students' opinions to some extent, the group agreed to this plan to accommodate the accelerated schedule. This method of dissemination, the group felt, would also increase the percentage of student returns. It was decided to mail questionnaires to work-site supervisors who would be identified by local coordinators.

The PAC discussed in detail the current TEA guidelines for cooperative education (Appendix B), and many good suggestions were made regarding the relevancy of and compliance to the guidelines. The PAC also discussed each question in the proposed student questionnaire, and they provided input as to the relevancy and wording of the questions. Questionnaires for coordinators and supervisors contained similar questions to those on the student questionnaire. PAC members reviewed these at their convenience and returned their comments by mail. Information concerning local cooperative education was provided by PAC members in the form of handbooks, course outlines, syllabi, brochures, etc., which were later reviewed by the project facilitator. Minutes were prepared and mailed to PAC members, a copy of which is included in Appendix D.

Development, Validation, and Administration of the Survey

Using input from the review of literature and the assistance of the project consultant, sample questionnaires were prepared based on existing TEA guidelines prior to the PAC meeting. Several questions were constructed in a multiple-choice format to cover each point of the guidelines. The sample questionnaires were discussed at the PAC meeting, and revised to reflect input from PAC members. Draft copies were prepared, and on October 18 fifty-five survey packages including the three questionnaires and directions for completing them were mailed to PAC and Review Committee members for review and validation. Their input was used to revise the questionnaires a second time and clarify some information on the direction sh[illegible].

Pilot Study of the Survey Instruments

Two community colleges in the vicinity of East Texas State University were contacted and asked to participate in a pilot study to validate the student questionnaires. Co-op coordinators from Henderson County Community College and Eastfield College in Dallas agreed to participate. On November 11, the co-op coordinator, Wayne Taylor, from Henderson County Community College administered the student questionnaire to eight students in his seminar class while the project facilitator observed and recorded elapsed times. Following directions provided by the facilitator, Mr. Taylor gave oral instructions to the group and passed out the questionnaire. The first student completed it in six minutes, while the last student took twelve minutes. One of the objectives of the pilot test was to estimate the time required for students to complete the questionnaire so this information could be provided in the instruction to coordinators. While the students were answering the questions, Mr. Taylor completed a copy of the coordinator's questionnaire. After completing the questionnaires, students and the coordinator were asked to evaluate the efficiency of the procedures and the clarity of the questions and directions. Copies of the student and coordinator evaluation sheets are included in Appendix F.

This process was repeated with forty-nine students and nine coordinators at Eastfield College on November 21. Under the direction of Patty Bradshaw, co-op students and coordinators from a variety of vocational programs met for a combined seminar session, at which time the questionnaire and evaluation sheets were distributed. Again, the project facilitator observed and recorded elapsed times. Using input from both pilot studies, the directions and questions were determined to be clearly stated, and an estimated time of ten to fifteen minutes was required to complete the survey. Thank-you letters were sent to the participating coordinators.

When the drafts of the questionnaires and survey directions were finalized, copies were sent to Dr. Dan Bristow, Vocational Research Division, Texas Education Agency. The letter requesting his approval to disseminate the questionnaires in the statewide survey is included in Appendix G.

To summarize the validation process of the survey instruments, the review of literature served as initial input, followed by discussion and input from the PAC. A field review was conducted with the PAC and Review Committee members, with an 87 percent response rate from the PAC and

70 percent from the Review Committee. A pilot study was conducted for the questionnaires with fifty-seven students and ten coordinators on two postsecondary campuses. TEA approval to disseminate the questionnaires was requested. The questionnaire, plus all materials and correspondence were reviewed by the Occupational Curriculum Laboratory (OCL) editor for grammatical and typographical errors, and the OCL graphic departments prepared the final drafts of the questionnaires which were printed in the OCL print shop. The printed questionnaires were color-coded to facilitate easier identification and tabulation.

Identification of the Survey Population

Immediately after the advisory meeting on September 30, the facilitator began the process of identifying the survey populations. As part of the field review packages mailed on October 18, Review Committee members were asked to submit the roll sheets of all co-op coordinators on their campus, plus the names and addresses of current work-site supervisors. From this input, the survey population was identified and individuals randomly selected to participate. Since the number of coordinators was relatively small (160), and this group was considered to be the most knowledgeable about cooperative operations, all identified coordinators were selected to participate. Names of 976 supervisors were submitted by co-op coordinators. Anticipating a lower response rate from this group, a relatively higher percentage (50 percent) was randomly selected to participate, resulting in 488 work-site supervisors. Current roll sheets submitted by the participating coordinators yielded the names of 1,780 co-op students, 25 percent of whom were randomly selected to participate. Table I lists the number identified in each group, the designated percent to be contacted, the resulting number of identified participants, the percent of response, and the total number of usable questionnaires returned.

TABLE I

Number of Identified Participants for Co-op Survey: Coordinators, Supervisors, and Students

GROUP	NUMBER IDENTIFIED	PERCENT CONTACTED	NUMBER OF PARTICIPANTS	RESPONSE RATE	USABLE RETURN
Coordinator	160	100%	160	68%	108
Supervisors	976	50%	488	25%	121
Students	1,780	25%	445	79%	353
TOTAL	2,916	37.5%	1,093	53%	582

Co-op Survey

The survey of cooperative education students, coordinators, and supervisors was conducted December 1 through 20. Individual questionnaires plus directions were mailed on November 26 to the identified supervisors. Copies of these are included in Appendix H and I, respectively. Packages of coordinator and student questionnaires were mailed on November 27 to the participating coordinators. Included in the package were questionnaires for the coordinator and students, roll sheets on which every fourth student was randomly identified to participate, plus directions to the coordinator on how to administer the survey and instructions for returning the responses. The coordinator questionnaire is included in Appendix J and the memo to the coordinator in Appendix K; directions for administering the student questionnaire in Appendix L; student questionnaire in Appendix M. Some coordinators were surveyed, but did not participate in the administration of the student questionnaire. Therefore, they received only the coordinator questionnaire and different directions, which are included in Appendix M. Postage-paid, self-addressed envelopes were enclosed with all questionnaires to encourage prompt responses. Reminder letters were mailed on January 10 to all coordinators and supervisors who were late in returning their questionnaires. This reminder letter is included in Appendix O.

The response rate for the survey was considered very good: an overall return of 53 percent, with a high return for students of 79 percent, 68 percent for coordinators, and 25 percent for supervisors. These statistics are listed in Table I. A combined total of 582 usable questionnaires were returned from students, coordinators, and supervisors. A small portion of returns were received after the cut-off

date of January 20; some from supervisors as late as March. Appendix E illustrates the statewide distribution of participating institutions.

Tabulation of Survey Data

A tabulation system was designed to record the data as questionnaires were returned. An extensive check-off system was used to keep track of when and by whom questionnaires were returned. Each questionnaire was given a code number reflecting the college from which it came and the individual response. The questionnaires were anonymous, unless students choose to volunteer for the follow-up telephone survey, in which case they supplied names, addresses, and telephone numbers.

The data from the coded questionnaires were tabulated on the East Texas State University mainframe computer system. The system for tabulating the data was designed by the project facilitator with assistance from the consultant, Dr. Tunnell, and personnel from the Graduate Office, Richard Dubes, who was proficient in statistics and data analysis. The analysis was subsequently designed by Dubes. Data were efficiently entered by the student worker, Robin White, who was assigned to the project. As part of the statistical analysis, an error ratio was computed at .03 percent, which indicated extreme accuracy for input of the large amount of data. Mean scores for each question were computed and are listed on the questionnaire adjacent to each multiple choice response in Appendix H, J, and M. These appendices represent copies of the survey instruments, and of course, the mean scores were not included on the original documents. The complete analysis of the survey questionnaires is detailed later in this section.

Telephone Survey

A telephone survey was conducted to validate the data collected on the written student questionnaires. A little more than half of the students surveyed (53.8 percent) volunteered for the telephone survey, which resulted in 190 students. Forty students, or approximately 20 percent of the total response, were randomly selected and stratified by program areas to be contacted. Ten questions representing key points were chosen from the questionnaire and worked into a three-minute telephone interview. The telephone survey was started on January 30 and concluded on February 20, 1986. A longer than anticipated delay occurred before initiating the telephone survey, and as a result, some of the students were not at the telephone numbers they had originally listed or not available during the time period they had indicated. For these and a variety of other

reasons, reaching the randomly selected participants proved difficult; nevertheless, the telephone survey was successfully completed after numerous calls. The students contacted were cooperative and generally very positive in their attitude toward cooperative education. A complete analysis of the telephone survey is discussed later in this section.

Analysis of Survey Data

After data from the three surveys were tabulated, a computer analysis was run on the East Texas State University (ETSU) mainframe computer. Assistance for the analysis design was supplied by Richard Dubes, from the ETSU Graduate School. Frequencies were computed for each response and reported as percentages. Copies of the survey instruments are included in Appendix H, J, and M which also list the percentage for each response. Data for each questionnaire were analyzed and then compared among the three instruments. Following is a detailed discussion of that analysis.

Analysis of Student Questionnaire

A total of 370 usable student questionnaires were returned which represented 26 Texas postsecondary institutions. Table V lists the colleges represented and the number of students who were surveyed at each institution. The questionnaire contained 43 questions and dealt with student information in the following nine basic categories, each of which are discussed in detail on the following sections:

Demographic information
Credit hours for co-op
Educational and career goals
Work Experience
Participation in a seminar class
Effectiveness of training plans
Effectiveness of evaluation measures
Opinions of co-op effectiveness
Services to special needs populations

Student Demographic Information. A number of demographic items were asked to determine characteristics of students enrolled in cooperative education. Most students (30.8 percent) fell in the 20-24 age group followed by 19.7 percent in the 25-30 age group. Of the remainder, 13.8 percent were less than 20 years of age, 17.3 percent were in the 31-35 age group, and 18.4 percent were over 35 years of age. The male/female breakdown was exactly 50 percent in each category. About 70 percent reported they had graduated

from high school and 43.5 percent were enrolled as college freshmen while 54.1 percent were sophomores. Nearly 50 percent were "B" students with grade point averages (GPA) of 3.0 to 3.99. Of those participating in the survey, 91.1 percent were enrolled in institutions which operate on the semester system and only 7.8 used the quarter system. (The remainder of 1.1 failed to respond to the question; hereafter missing data will not be noted, but will account for any discrepancies in the totals. Complete data are located in the appendices.)

The majority of students (47.1 percent) were enrolled in Mid-Management programs which included cooperative education as a major component of the program. Data from this study indicate that Mid-Management programs are considerably different in nature from other programs. These facts tended to skew the results in several categories; therefore, separate analyses were run using (1) the total group, (2) the total group less the management students, and (3) management students only. This differentiation in data is noted throughout the report when it made a significant difference in the results. Nine other program areas were represented in the survey, and all are listed on Table II.

TABLE II

Students by Vocational Major

VOCATIONAL MAJOR	STUDENTS	PERCENT
Agriculture	2	.5
Distribution & Marketing	24	6.5
Home Economics	24	6.5
Office Occupations	48	13.0
Industrial Education	12	3.2
Health	00	00.0
Technical Education	39	10.5
Community Service	20	5.4
Management	174	47.0
Other	6	1.6
Missing Data	21	5.7
TOTAL	370	100.0

Credit Hours for Co-op. Questions about students' participation in cooperative education were asked to identify the time students spend in cooperative education and the number of credit hours they receive. Generally, students take co-op during the last semester of their

planned studies. It is intended to culminate their activities in the classroom with relevant work experience. The data showed that 45.7 percent of co-op students had completed 25 or more credit hours in their related field prior to enrollment in cooperative education. With this objective in mind, it is unusual to report that 17 percent of the students had completed six or less credit hours. As mentioned in the previous section, Mid-Management programs are different in that most require or allow four semesters of co-op. This may account for the unexpected number of students enrolled in co-op with little or no previous vocational training.

The data seem to indicate a wide diversity among institutions and among programs within institutions concerning the number of credit hours awarded as compared to the number of hours spent at the training station. When asked, "How many college credit hours are you receiving this semester for your co-op work experience?" 30.5 students reported three credits, 30.8 reported four credits, and 19.5 were receiving 6 or more credit hours. To earn these credits, 47.5 of the participants reported they were required to work 20-24 hours and 17.3 reported 40 hours or more. In a subsequent telephone survey of randomly selected students, about 40 percent of participants changed their response for the question related to required work hours. Many of the students who were called expressed that they really didn't know how many hours they were required to work, but had reported their actual hours on the job.

When answering question number twelve concerning actual work hours, 54.6 percent reported working 40 hours or more at their co-op training station. In this area there was a significant difference between Mid-Management and other program areas: Mid-Management reported 65.5 percent worked 40 hours or more per week; all other programs combined reported 44.9 percent.

About two thirds (62.4 percent) reported that the current semester was their first experience with cooperative education. The majority (83.6 percent) were paid for their work, while 15.9 were in voluntary positions which usually tend to be in criminal justice programs.

Ed[illegible]ional and Career Goals. Three general questions were asked in this category. The educational goal of 59.7 students [illegible]as an an associate degree, while 26.5 intended to go on for a bachelor's degree. Less than 4 percent planned graduate education. About two-thirds (68.4) felt their cooperative employment was highly, or very highly related to their educational goal. A little more than half (55.4 percent) were pursuing more education as a means to change their employment.

Work Experience. Questions concerning work experience were asked in an effort to try to establish training needs. Traditionally, the objective of cooperative education has been to provide relevant work experience for young or untrained workers. Data gathered in this study tend to indicate this may not be the primary purpose of such programs in the institutions surveyed. Cooperative education students reported having many years of work experience, and a large percentage had been at their training site for many months, and in some cases, years. The data indicated 44.1 percent had three or more years of full-time work experience in any area, the second largest group dropped to 27.3 percent having six months or less. For part-time work experience of any kind, 48.1 percent had six months or less, and the remainder was evenly distributed among the following categories: 7-12 months, 13.0 percent; 13-24 months, 10.8 percent; 25-36 months, 6.5 percent; and 37 months or more, 14.6 percent. About a fourth of the respondents said 75-100 percent of their previous full- and part-time work experience related to their current educational goal. The data would seem to indicate institutions surveyed are not serving young, inexperienced workers. Again, the data are skewed by the inclusion of Mid-Management in the analysis. Examining the Mid-management philosophy of up-grading workers to assume management responsibilities, it is reasonable to assume that such student/workers would indeed be employed longer and have more experience than students in other vocational areas. The data support this hypothesis: 55.7 percent of management students had three years or more of work experience, while only 44.1 percent of students in other programs had this amount of work experience.

A similar discrepancy occurred when analyzing the number of weeks a student had worked at his/her training station. The mean for all groups combined is 99.8 weeks, while Mid-Management students had an average of 147 weeks, and all other program areas combined had an average of 57 weeks. One Mid-Management student reported being at the training site for 18 years. Again, the logical explanation is that Mid-Management students are retraining for management positions within the same company in which they have worked previously. However, even when Mid-Management students were removed from the analysis, the average co-op student had worked at the same training site for more than a year.

Texas Education Agency (TEA) program standards, which are included in Appendix B, provide guidelines for post-secondary cooperative education. Section 1052 for internship programs, part number 4, recommends:

> "Students who are employed full time [should] not use their place of employment as a training station. In those cases where this is permitted, particular care must be exercised to ensure that the student follows an acceptable training plan and is engaged in appropriate training activities."

The data from this study seem to indicate that a percentage of co-op students are employed full-time, are using their full-time employment as a training station, and have been employed with the same employer for a year or longer.

Participation in a Seminar Class. The TEA program standards mentioned above also give guidelines concerning student participation in a cooperative education seminar class. TEA program standards for both Cooperative Office Occupations (Section 1410.5, #2) and Mid-Management (1321.5, #2) suggest a one-hour seminar class be scheduled at least once a week in addition to other regularly scheduled classes. In an effort to ascertain if this guideline was being observed, students, as well as coordinators and supervisors, were asked to respond to several questions on this topic. When students were asked if they were currently enrolled in a work experience seminar class at the college, 75.7 percent responded that they were, while 21.6 percent said they were not. Of the total enrolled, 57 percent attended every week, 21.6 were not enroiled and, therefore, were not required to attend, 7.6 percent attended when meetings were scheduled by the coordinator, and the remainder were evenly spread among two, three, and four week meetings. Of those enrolled, attendance was fairly good: 54.5 percent reported they attended every meeting, another 19.7 percent were occasionally absent, only a small percent were absent often. In addition to attending regularly, most students (67.9) rated the value of the class as good or very good, only 7.8 rated it fair or less (21.6 percent skipped the question because they were not enrolled). Generally, students attended seminar classes regularly and considered them valuable. However, seminar classes were not always scheduled on a weekly basis at all institutions surveyed.

Effectiveness of Training Plans. TEA program standards also suggest the use of training plans to coordinate learning activities at the work station with those in the classroom. Generally, this guideline is followed by postsecondary institutions. Of those students responding, 84.3 percent reported they had a training plan and 76 percent felt the training plan was good, or very good, in coordinating their classroom instruction with those skills learned on the job. Some students, 11.6 percent, reported they did not have a training plan. Usually, the college coordinator, the work-site supervisor, and the student had

input into the objectives of the training plan, which, in 43.9 percent of colleges was prepared the first week of school; 22.4 percent were completed prior to the start of the semester.

Effectiveness of Evaluation. Evaluation is an important part of cooperative education, as it is with any educational endeavor. Students reported that the coordinator visited the training station one (34.9 percent) or two (40.8 percent) times during the semester, and 36 percent reported the coordinator always discussed the results of the visit with the student; 16.5 percent usually discussed results; 19.2 percent occasionally discussed; and 22.1 percent seldom or never discussed the results. Students (69.5 percent) generally rated the visits as valuable or very valuable. Also as a means of evaluation, 34.8 percent of the students reported the supervisor had a conference with the them concerning training plan objectives two or three times per semester. However, the supervisor did not always provide evaluation of training plan objectives. Students (57.9 percent) felt the conferences were extremely or highly valuable.

Opinions of Co-op Effectiveness. In four questions, students were asked to express their opinion concerning the effectiveness of cooperative education. For all question in this category, 85 percent or higher of students rating were good, or very good. Students felt programs were effective in helping them meet their vocational goals, the quality of both the content and instruction of seminar and vocational courses was good, and that cooperative education programs should be continued at the same level or increased. Students revealed positive opinions about cooperative education, an attitude that was validated in the telephone survey and reiterated by coordinators and supervisors. A comparison of these questions among the three survey populations is included in Tables XI, XII, XIII, and XIV.

Services to Special Needs Populations. Co-op students are generally not aware of nor use services to special needs populations. They were queried concerning employment in non-traditional jobs and services to special needs students from both the college and the employer. Of those participating in the survey, 4.5 percent identified themselves as having one or more of the following special needs: physically handicapped, educationally disadvantaged, or limited English proficient. These percentages differ somewhat from those reported by the Vocational Education Evaluation System (VEES) for colleges and Texas State Technical Institutes vocational programs. The co-op data show slightly more handicapped and slightly less LEP. The

disadvantaged category, however, shows a significant difference with much less reported in the co-op survey. Inasmuch as the data gathered in the co-op survey was self-reported information, the co-op data may not accurately reflect existing conditions. Table III shows the percentages reported by the co-op survey and the VEES report.

TABLE III

Percentage of Special Needs Populations in Postsecondary Co-op Programs and all Colleges and T.S.T.I Vocational Programs as Reported in the VEES

CATEGORY	CO-OP 1985	Percent of Enrollees* 1983-84	1982-83
Physically Handicapped	2.0	1.2	1.49
Disadvantaged	.5	12.1	13.81
Limited English Proficient	2.0	2.3	.96
No Response	2.0		

*Vocational Education Accountability Report, 1984,

Analysis of Student Telephone Survey

A telephone survey of 40 randomly selected students was conducted in an effort to verify data gathered in the written survey. Ten key questions from the student questionnaire were addressed to the students who had volunteered for the telephone survey. The students' original responses were compared with their telephone answers. Tabulation and analysis were done on the ETSU mainframe computer system, and a question by question comparison is listed in the following sections. Most of the missing responses on the original questionnaire were replaced with answers as a result of the telephone survey.

There was absolutely no change in students' responses on the question concerning their vocational major. However, the telephone survey revealed that about 20 percent of those called didn't know or understand how many credit hours they were receiving for the semester of co-op work experience. An even greater number of students (40 percent) were confused about how many hours they were required to work to earn their co-op credits. On the original questionnaire, these students had mainly marked the hours they were actually working. Then, when the question was asked again and explained on the telephone survey, students reported

that they didn't really know how many hours they were required to work for their co-op credits. Students were more consistent in reporting the number of hours they actually worked; however, five students, or 12.5 percent, did change their responses slightly among the nine choices of answers.

Student Participation in a Seminar Class. On the written questionnaire, 75.7 percent of students reported they were enrolled in a seminar class. On the telephone survey, five students (12.5 percent) changed their response from "No" to "Yes" and one student changed his/her response from "Yes" to "No." Some students didn't understand the term "seminar class," and when it was explained they changed their response.

Student Training Plans. On the written questionnaire, 84.3 percent of students reported having a training plan for their co-op work experience. The telephone survey helped to clarify this question with about 10 percent of those called. Two students changed their responses from "No" to "Yes," one student changed from "Yes" to "No," and one student who did not respond on the written questionnaire said that he/she did have a training plan. These changes were minor, but tended to strengthen the fact that students do have training plans.

Coordinators' Visits to the Training Stations. On the written questionnaire, 40.8 percent of the students reported that the coordinator visited their training station twice during the semester; 34.9 reported only once. On the telephone survey, about one-third of those called changed their responses, some up, some down, which more or less canceled out any changes in the overall statistics. The interviewer made it a point to explain that the responses should reflect information at the time of the written survey, which was about the first week or two in December. Calls were not made until after the semester closed, and additional coordinator visits may have been reported in the telephone survey regardless of the interviewer's admonition.

Evaluation of Student by Supervisor. On the written question regarding the evaluation provided by the supervisor, responses were quite equally scattered among the five possible answers ranging from "always" to "never," with a slightly larger concentration on the "often" and "occasionally." When given these choices on the telephone survey, about two-thirds of those responding changed their reply. Most changes were either one degree up or down, and very few major deviations were recorded.

Opinion of Co-op Effectiveness. The four questions soliciting students' opinions of cooperative education were repeated on the telephone survey. On the written questionnaire, 57.9 percent of the students rated the effectiveness of co-op as extremely or highly effective. On the telephone survey, 45 percent of the respondents raised their rating by one or more degrees, and two students (5 percent) lowered their rating from extremely to highly effective. For the 40 students who were called, 95 percent rated the effectiveness of co-op as extremely or highly effective.

Ratings for the most part (80 percent) were unchanged for the question "the number of cooperative education programs should be increased? decreased? etc. Nearly half of the respondents on the written survey wanted to increase cooperative education, and five of the telephone respondents (12.5 percent) changed from "continued at present level" to "increased." Students demonstrated a very positive attitude toward cooperative education.

On the written survey, 88.1 percent of the students rated the quality of the content of all seminar and vocational courses as good or very good. On the telephone survey, 67.5 percent of the responses remained the same while 25 percent lowered their evaluation of the content, and 7.5 percent raised their ratings. Eight students changed their responses from very good to good, which was still on the positive end of the scale.

On the written survey, 89.7 percent of the students rated the quality of coordination and instruction for cooperative education as good or very good. On the telephone survey, one-fourth of those called changed their response: exactly 12.5 percent increased their ratings while 12.5 decreased their ratings, which made no change in the overall analysis. Complete data on these four questions, plus a comparison among survey groups, are located in Tables XI, XII, XIII, and XIV.

Analysis of Coordinator Questionnaire

A total of 108 usable coordinator questionnaires were returned representing 29 postsecondary institutions (see Table V). Responses to the 42 questions were tabulated on the ETSU mainframe computer, the analysis of which is discussed in detail in the following sections. Information was solicited in nine general categories:

Teacher/school demographic information
Student enrollment
Student participation in a seminar class

Co-op credits received by students
Student training plans
Student evaluation by coordinator and supervisors
Instructor's work load
Opinions of co-op effectiveness
Services to special needs populations

Demographic Information. Information was solicited concerning size of the college and the number and kinds of vocational programs in which cooperative education was a component. On the average, co-op coordinators had worked with cooperative education programs for 6.2 years; the range was 1 to 21 years. In reporting the enrollment of the college, 36.1 percent of the coordinators worked in schools of 2,001-5,000 students, and 30.6 percent worked in schools with 10,000 or more students. The large majority of colleges, 88 percent, were on the semester system, and the remaining 12 percent use the quarter system. One-third of the respondents reported having 0-3 full-time coordinators while less than 10 percent reported full-time coordinators in each of the 4-6, 7-9, 10-12, or 13 or more categories; 16.1 percent reported they did not know how many full-time coordinators were employed for cooperative education and 23.1 percent failed to answer the question. In reporting part-time coordinators, the largest category fell in the "don't know" and missing data, for a combined total of 56.5 percent.

Coordinators were asked to list all vocational/technical fields that offer cooperative education at their local campus. The range was 1 to 58, with a mean of 8.8. Some coordinators sent photo copies of the list of voc/tech programs and indicated that cooperative education was offered in all of them. Conflicting information concerning programs offered was sometimes received from coordinators at the same campus. As a result, the reliability of data gathered from this question is doubtful. In tabulating this information, course titles were summarized into the following ten general program areas:

Agriculture
Distribution and Marketing
Occupational Home Economics
Office Occupations
Industrial Education
Health Occupations
Technical Education
Community Service
Management
Other/undecided

Instructors were much more explicit in listing the vocational/technical fields for which they served as cooperative education coordinator. These responses were again summarized into the ten categories listed above. It was common for coordinators to supervise several program areas. Coordinators of Mid-Management programs represented at least one-fourth of the total, followed by technical programs with about 12 percent. Coordinators who supervised combinations of programs made tabulation and analysis of this data difficult.

Student Enrollment. Information concerning student enrollment and placement in training sites showed positive trends. On the average, 64.8 percent of students were employed before entering the co-op program and one-fourth were placed in work stations by the coordinator. The majority of coordinators, 69.4 percent, reported 90-100 percent of their students were placed in work stations by the 12th class day. For the most part, retention of students was good. About 60 percent reported a drop-out rate of 9 percent or less, and 19.4 percent reported drop-outs of 10 to 19 percent.

Student Participation in Seminar Classes. Coordinators were asked to identify information concerning the co-op seminar class. The majority of coordinators, 84.3 percent, reported that a seminar class was available to co-op students, but 13.9 percent did not offer the seminar class. No explanation was discernable as to why a small number of programs did not have seminar classes as suggested in TEA program standards. Coordinators reported that 64.8 percent of the students were required to attend the seminar class once a week. Less than 5 percent in each category required meeting on two-, three-, or four-week cycles. Student enrollment in seminar classes was good, with 76.9 percent of the coordinators reporting that 90-100 percent of students were enrolled, and the average attendance rate was 80 percent or above.

Co-op Credits Received by Students. In an effort to identify practices concerning the number of credit hours applicable to cooperative education programs, coordinators were asked to respond to three questions. About one-third reported that a maximum of three credit hours could be earned in a semester, and 37 percent listed four credits. For the maximum number of co-op credit hours that can apply to a student's two-year degree, 46.3 percent marked the range of 5 to 8, 18.5 percent marked 15 or more credits, with 3-4 and 12-14 received about 14 percent each. Coordi-

nators reported that 22.2 percent of students were enrolled for one semester; 36.1 percent for two semesters; and 27.8 percent for four semesters. Students who enroll for four semesters are generally in the Mid-Management program.

Student Training Plans. Most responses in this section of the coordinators questionnaire compared favorably to those of the students. The majority of coordinators (86.1 percent) reported that 90-100 percent of students had training plans on file at the college. Training plans were prepared by most coordinators (30.6 percent) the first week of the semester, while 28.7 percent prepared them the second week. Various combinations of the college co-op coordinator, the work-site supervisor, and the student were listed as having input into the student's training plans. More than 87 percent of the coordinators rated as good or very good the coordination of classroom instruction with skills listed on the training plan to be learned at the training site.

Evaluation of Students by Coordinators and Supervisors. Evaluation of students' work was accomplished by visits to the training site and conferences with the student by both the coordinator and the supervisor. On the average, 64.8 percent of the coordinators visited the work station twice during the semester, 19.4 percent visited only once, and 10.2 and 5.6 percent visited three and four times, respectively. A majority of coordinators reported having a conference with the student to discuss observations, 38.9 percent said, "always'; 38 percent said, "often'; and 17.6 percent said, "occasionally." Coordinators also had conferences with the work-site supervisors: 72.2 percent, always; 20.4 percent, often. Work-site supervisors provided evaluation of training plan objectives to students, 45.4 percent reported always; 30.6 percent reported often; and 12 percent reported occasionally.

Coordinator's Work Load. Questions concerning work load and contracted working time were asked to get a general picture of working conditions for the coordinator. TEA program standards for internship programs (Appendix B) recommend 20 students in training stations as the optimum number for an instructor-coordinator to supervise with a maximum of 40 students. Guidelines for both office occupations and mid-management suggest coordinators be employed a minimum of 10 months per year, with the beginning date of employment not later than August 1. Data from the survey indicate, 33.3 percent of coordinators supervised 0-10 students, 10.4 percent supervised 11-20, 20.4 percent supervised 21-30, 17.6 percent supervised 31-40, and 8.3 percent supervised 41 or more students. Nearly 70 percent of the coordinators

supervised from 1 to 20 training sites, and more than 60 percent of these are within a 30-minute drive. Coordinators reported that 38 percent of the training sites represent 0-10 different employers; 32.4 percent represent 11-20 employers. The data generally indicated that coordinators are following the 20-40 student load as suggested in TEA guidelines.

Survey responses provide evidence that most of cooperative education coordinators serve part-time in this capacity. Half of those surveyed reported that they devote 39 percent or less of their contracted work time to co-op. Another 18.5 percent devote 40-59 percent of their time, while only 10.2 percent work full-time as co-op coordinators. Slightly less than half (42.6 percent) are contracted to work nine months, and 21.3 percent work ten months. More than half usually start work on or about September 1, 17.6 percent start on August 1, while 19.4 percent reported another beginning date. On the average, 46.3 percent of coordinators work with cooperative education 1-10 hours per week, 32.4 percent work 11-20 hours, 10.2 percent work 31-40 hours per week. About one-fourth of the coordinators reported that their co-op assignment created a teaching overload for the semester in which the data were collected. These data indicated the majority were working part-time in their capacity of cooperative education coordinator. However, analysis of the student-coordinator ratio indicated a full-time, 20-40 student load.

Opinions of Co-op Effectiveness. Coordinators were asked the same four questions concerning co-op effectiveness as were the students and work-site supervisors. The computed percentages for responses from the coordinators were nearly identical to those of the students and closely matched those of the supervisors. Tables XI, XII, XIII, and XIV provide a comparison of these data, which is placed later in this section. More than 80 percent of the coordinators rated cooperative education as highly or extremely effective in helping students reach their vocational goals. Likewise, 38 percent wanted to increase co-op programs, and 50 percent opted to continue co-op at the present level. Quality of both content and coordination/instruction were also highly rated by coordinators, receiving 82.4 and 87 percent good/very good ratings, respectively.

Special Populations. The questions on services to special needs populations were repeated in the three questionnaires. A comparison of these analyses has been compiled and is included in a later section. About one-third of the coordinators responded to each of the five questions concerning services to special needs groups with "don't know." Half of the coordinators reported that the college

and the employer occasionally or often encouraged placement of co-op students in non-traditional jobs. The college received higher ratings (64.7 percent) for making provisions for special needs co-op students than did the employers who received a combined rating of 46.2 equally distributed between often and occasionally. About 40 percent of the coordinators reported no special needs students currently enrolled in their programs. Only small percentages of coordinators reported physically and mentally handicapped students were enrolled, but about 25 percent of the coordinators noted enrollment of educationally disadvantaged and/or limited English proficient students. The data seem to indicate cooperative education is serving about the same proportion of special needs students as are served in most other postsecondary vocational programs.

Analysis of Work-Site Supervisor Questionnaire

A total of 123 usable supervisor questionnaires were returned representing employers who participated in cooperative education programs at 23 postsecondary institutions which are listed on Table V. This questionnaire had 25 questions and was considerably shorter than the other two in an effort to make it less time consuming for busy employers and supervisors. Basically the same categories are covered:

Supervisor/company demographic information
Student participation in seminar class
Student training plans
Student work hours
Student evaluation by supervisor and coordinator
Opinions of co-op effectiveness
Services to special needs populations

Demographic Information. Information was solicited about the company, the supervisor, and their involvement with cooperative education. Supervisors had worked with co-op an average of 2.9 years with a range of less than one semester to 14 years. Large and small companies were represented: 30.1 percent had 1-10 full-time workers, and the next largest response was 18.7 percent for 101 workers or more. More than one-third of the supervisors reported that their company had 1-10 part-time workers, few had more than ten, but 42.3 percent failed to respond to this question. A range of 1-40 was reported for the number of college cooperative education work stations located at the company or agency, with a mean of 3.2. A good portion of the supervisors reported that students were employed as regular workers after their co-op experience: 40.7 percent said 76-100 percent of co-op students became employed and 22.8 percent reported only 1-25 percent of students were regularly employed after their co-op experience. A wide variety

of types of businesses and agencies were represented in the survey. These were categorized by the fifteen occupational areas listed in the Dictionary of Occupational Titles, and the number and percent of employers in each category are summarized in Table IV.

TABLE IV

Employment Areas Represented in the Survey

OCCUPATIONAL AREA	NUMBER	PERCENT
Agribusiness	1	.8
Fine Arts	1	.8
Health Occupations	8	6.5
Hospitality and Recreation	8	6.5
Manufacturing	13	10.6
Marine Science	1	.8
Marketing and Distribution	23	18.7
Personal Services	00	000
Public Services	21	17.1
Transportation	11	8.9
Business and Office	12	9.8
Communications and Media	8	6.5
Construction	10	8.1
Consumer and Homemaking	1	.8
Environment	1	.8
Missing Data	4	3.3

Student Participation in Seminar Class. When asked if the co-op student was enrolled in a seminar class, about one-fourth reported that they didn't know. Another 18.2 percent reported that 90-100 percent of the students/employees were enrolled in a seminar class while 17.6 percent said that 49 percent or fewer of their students/employees were enrolled. The wide fluctuation in responses from the supervisors would seem to indicate that some are not aware of this component of cooperative education programs. A high percentage of both coordinators and students report participation in seminar classes. This discrepancy in the supervisors' data can most likely be attributed to their lack of information about the seminar class.

Student Training Plans. Inasmuch as supervisors are usually involved in the preparation of training plans, they were much more knowledgeable of this aspect of cooperative education; however, 10-25 percent of them still responded "don't know" to this series of five questions. Supervisors were asked to identify what percentage of

students had training plans on file with the employer. Responses fluctuated from high to low: 43.9 percent reported 90-100 percent of students had training plans; 27.6 reported 49 percent or less, with very low rating between, and 17.1 percent did not know. Training plans received good (41.5 percent) and very good (26 percent) ratings regarding the coordination of classroom instruction with skills learned at the training site. About one-fourth of the supervisors reported that training plans were prepared prior to the start of the semester, while 28.5 percent said they were completed the first week of the semester. Again, few responses were marked in the next four categories, but 26 percent reported they didn't know when training plans were prepared. Supervisors reported various combinations of students, coordinators, and supervisors were responsible for preparing the training plans, and they included themselves more than half of the time.

Student Work Hours. Supervisors were asked how many hours, on the average, co-op students worked each week at their training stations. They reported that 43.9 percent worked 30 hours or more, 17.9 percent worked 20-24 hours per week, and all other categories received less than 10 percent each. About one-fourth of the supervisors reported that students worked in their training station for only one semester, 18.7 percent reported two semesters, and 22 percent said students worked four semesters. Another quarter reported that they didn't know.

Student Evaluation by Coordinators and Supervisors. The data showed that supervisors were more aware of the evaluation they did of the students' work than the evaluation done by the coordinator, and it is natural that they would. Supervisors reported that they often (35.8 percent) or occasionally (39.8 percent) provided evaluation of training plan objectives to the student/employee. When asked about the influence their evaluation had on the student's final grade, more than half didn't know.

Coordinators were also involved in evaluation of the student at the work site. On the average, 28.5 percent of supervisors reported that coordinators visited the work site twice during the semester, while one-third said they came only once. A significant number, 16.3 percent, reported that the coordinator never visited the student's work station. When the coordinator visited the place of employment, almost half of the supervisors reported that the coordinator had a conference with the supervisor.

Opinions of Co-op Effectiveness. The same four questions were asked of the supervisors as were asked the students and coordinators, and their responses matched closely with the others. A summary of the comparison of this data is provided in Tables XI, XII, XIII and XIV. Effectiveness of cooperative education in helping students reach their vocational goals was rated highly effective by 42.3 percent of the supervisors, extremely effective by 22 percent, and somewhat effective by 26 percent. Almost half of the supervisors wanted to increase cooperative education, and 30.1 percent said it should be continued at the same level. None said to decrease or discontinue it. This data particularly show that supervisors strongly support co-op. The quality of the co-op seminar and vocational courses was rated good by 39.8 percent of the supervisors, very good by 21.1 percent, and 22.8 percent had no opinion. Figures reflecting supervisors' ratings of quality of coordination/instruction were very similar to the ratings of the content. Supervisors generally had positive attitudes toward cooperative education.

Services to Special Needs Populations. For the most part, supervisors were unaware of services for special needs students as offered by the college and somewhat more knowledgeable of such services in their own company. Over 65 percent of the supervisors did not know what the college was doing to promote placement of co-op students in non-traditional jobs, and nearly one-fourth did not know what their own company was doing in this respect. About a quarter reported employing one or more of the special needs categories, with the largest concentration falling in physically handicapped and limited English proficient. Two-thirds of the supervisors did not know to what degree the college made provisions for special need co-op students, and about one fourth said their company/agency occasionally made provisions for such students. A very small number of special needs students participate in cooperative education, and supervisors tended not to know very much about services available to them.

Comparison of the Analyses of the Three Questionnaires

Good participation and response rates were observed in the survey of students, coordinators, and supervisors. More than half of Texas postsecondary districts were involved in the survey. Each campus was assigned an identification code, a listing of which is included in Appendix E with complete names and addresses of the school and a map designating its location. A review of this map shows a statewide representation in the cooperative education research project: El Paso Community College on the west, Frank Phillips College in Borger to the north, Grayson County and Texarkana

to the northeast, College of the Mainland and Galveston College to the southeast, and Texas Southmost College at Brownsville at the southernmost tip of Texas. Students represented 26 schools, coordinators represented 29 schools, and supervisors represented 23 schools. Table V lists the colleges represented in the survey with their identification code; the number of students, coordinators, and supervisors; and the percent each represented in the total response.

A small difference was observed in responses concerning whether the college was on the semester or quarter system: 91.1 percent of the students reported they were on the semester system and 7.8 were on the quarter system; 88 percent of coordinators reported they were on the semester and 12 percent were on the quarter system. The Texas State Technical Institutes are primarily the only campuses that are on the quarter system.

Student Participation in a Seminar Class. TEA program standards recommended a weekly seminar class be offered in conjunction with cooperative education programs (Appendix B: 1410.5, #2 and 1321.5, #2). About three-fourths of the students reported being enrolled in a seminar class and 84.3 percent of the coordinators said a seminar class was offered. More than one-fourth of the supervisors didn't know if students were enrolled in a seminar class and 27.6 percent reported 49 percent or less of the students they supervise were enrolled. It appears that some supervisors were not aware of the seminar class offered by the college. While there is some discrepancy in the reported figures, the data seem to indicate that from 10 to 20 percent of the programs surveyed did not offer a seminar class.

The majority of those programs that had seminar classes required students to attend once a week. About 20 percent of the programs required students to attend either every two, three, or four weeks or when meetings are scheduled by the coordinator. These data were consistent between the student and coordinator questionnaires. Average attendance in seminar classes was good, as reported by both students and coordinators.

Credit Hours for Co-op. Well over half of the students reported receiving three or four college credit hours for their co-op work experience, while 19.5 percent reported receiving six credits or more. A slightly greater percentage of coordinators reported three or four credits as the maximum number of co-op credit hours that could be earned in a semester. It is surprising that 12 percent of the coordinators failed to respond to this question. A comparison of this data is listed in Table VI.

TABLE V

Student, Coordinator, and Supervisor Response by College

COLLEGE	SCHOOL CODE	STUDENTS	PERCENT	COORDINATORS	PERCENT	SUPERVISOR	PERCENT
Frank Phillips College	1	8	2.2	1	.9	1	.8
TSTI Amarillo	2	5	1.4	1	.9	1	.8
South Plains College, Levelland	5	10	2.7	3	2.8	1	.8
South Plains College, Lubbock	6	12	3.2	3	2.8	3	2.4
El Paso Community College	7	42	11.4	19	17.6	7	5.6
Midland College	11	11	3.0	3	2.8		
Southwest Col. Inst. for the Deaf	12			1	.9		
Howard College at Big Spring	13	6	1.6	1	.9	8	6.5
Tarrant County Junior College, NE	21	34	9.2	5	4.6		
North Lake College	23	16	4.3	3	2.8	13	10.5
Richland College	26	2	.5	6	5.6		
Eastfield College*	27	43	11.6	9	8.3	10	8.1
Grayson County College	31	1	.3				
Texarkana Community College	34	21	5.7	5	4.6	9	7.3
Tyler Junior College	36			1	.9		
Temple Junior College	38	30	8.1	4	3.7	10	8.1
TSTI, Waco	39	20	5.4	12	11.1	15	12.1
Navarro College	42	6	1.6	2	1.9	5	4.1
Henderson County Junior College	43	4	1.1	1	.9	4	3.3
Southwest Texas Junior College	49	10	2.7	1	.9	3	2.4
St. Phillips College	51	17	4.6	3	2.8	10	8.1
Wharton County Junior College	52	7	1.9	1	.9	4	3.3
Larado Junior College	53			4	3.7		
Texas Southmost College	54	17	4.6	5	4.6	4	3.3
Bee County College	57	18	4.9	1	.9	2	1.6
College of the Mainland	61	10	2.7	2	1.9	5	4.1
Galveston College	62	4	1.1	2	1.9	1	.8
North Harris County College	63	3	.8	3	2.8	4	3.3
San Jacinto College, Central	65	13	3.5	2	1.8	2	1.6
Houston Com. College System	67			4	3.7	1	.8
TOTAL		370	100.0	108	100.0	123	100.0

*Eastfield College participated in the pilot study.

TABLE VI

Comparison of College Credit Hours
as Reported by
Students and Coordinators

COLLEGE CREDIT HOURS	STUDENTS %	COORDINATORS %
1	5.1	7.4
2	10.5	5.6
3	30.5	34.3
4	30.8	37.0
5	1.1	00.0
6	19.5	3.7
Missing Data	2.4	12.0

Comparison of data from the student and supervisor questionnaires concerning number of semesters of student participation revealed a rather large discrepancy. The majority of students (62.4 percent) reported co-op participation for only one semester. About one-fourth of the supervisors, on the other hand, reported students worked with their company for one semester, while another 22 percent indicated students were enrolled for four semesters, and 23.6 percent didn't know how many semesters students participated in cooperative education. A reason for this discrepancy can be determined by analyzing the data with and without the Mid-Management programs. All other programs combined reported 75 percent enrolled in one semester of cooperative education, 12.8 percent in two semesters, and very small percents in three or more semesters. Mid-Management programs, on the other hand, had 48.3 percent enrolled for one semester, 13.8 for two, 21.3 percent for three, and 12.1 percent in four semesters.

Effectiveness of Training Plans. Inasmuch as the use of training plans was recommended by TEA program standards, three to four questions on this topic were asked of students, coordinators, and supervisors. Some differences were observed among the responses. Students and coordinators generally agreed that training plans were on file at the college. Less than half of the supervisors reported that 90-100 percent of their co-op students had training plans while more than a quarter reported 49 percent or fewer of their students had training plans. The data indicated that supervisors reported fewer students with training plans than were reported by either students and coordinators.

More than 60 percent of respondents on each questionnaire reported training plans were prepared at least by the second week of the semester. The distribution among the three choices, however, showed some variation which is illustrated on Table VII. About half of the students reported training plans were prepared prior to the start of the semester or during the first week. About half of the coordinators, on the other hand, prepared training plans during the first or second weeks of the semester. Data from the supervisors tended to match more closely that of the students. However, about one-fourth of the supervisors marked "don't know."

TABLE VII

Preparation of Training Plans

TRAINING PLANS ARE USUALLY PREPARED:

	STUDENTS %	COORD. %	SUPER. %
Prior to start of semester	22.4	10.2	26.8
First week of semester	34.9	30.6	28.5
Second week	14.3	28.7	13.0
Third week	8.3	16.7	00.0
Fourth week	3.8	10.2	.8
Fifth week or later	1.9	1.9	1.6
Missing data or Don't Know	14.3	1.9	29.3

Combinations of students, coordinators, vocational instructors and supervisors were involved in determining the goals, objectives, and activities on the students' training plans. The most common combination listed by all respondents was coordinator, supervisor, and student. The totals of percents for coordinators, supervisors, and students are almost identical when added across. A wide variety of combinations existed, but the total inclusion is very close. Table VIII lists the percents of which the multiple components were listed on the various questionnaires.

TABLE VIII

Input for Training Plan Development

INPUT FROM:	QUESTIONNAIRES STUD. %	COORD. %	SUPER. %	*TOTAL %
College Coordinator	56.5	83.3	46.3	186.1
Work-Site Supervisor	50.3	83.3	59.2	192.8
Vocational Instructor(s)	14.6	33.3	29.2	77.1
Student	46.5	76.8	62.5	185.8
Don't Know or Missing Data	13.5	0.0	15.5	29.0
Most Common Combination: Coord., Super., Student	18.6	42.6	17.9	79.1

*Various combinations account for totals of more than 100%

A 20 percent difference exists in ratings of how well the students' training plans coordinate classroom instruction with skills learned on the job. Coordinators rated this function higher than did the students and supervisors. Combining good and very good, the responses were as follows: coordinators, 87.1, percent; students, 75.9 percent; and supervisors, 67.5 percent. The percents of rating for fair or less were very small; however, about 15 percent of the supervisors didn't know or failed to respond to the questions.

Evaluation of Students by Supervisors and Coordinators. Evaluation and feed back to the student are important elements in effective cooperative education programs. Four to six questions were asked to determine practices in this area. The data indicated that, on the average, coordinators visited students' training stations once or twice during the semester; however, some differences existed in the percentages reported by students, coordinators, and supervisors. A greater number of coordinators (64.8 percent) marked two visits while only 40.8 percent of the students and 28.5 percent of the supervisors marked two visits. Conversely, a larger number of supervisors and students marked one visit than did the coordinators. A significant number of supervisors (16.3 percent) reported that coordinators never visited the training station, but this category was very small on the student questionnaire and reported as zero by coordinators. Table IX illustrates these differences.

TABLE IX

Coordinators' Visits to the Training Station

NUMBER OF VISITS DURING THE SEMESTER	STUDENTS %	COORDINATOR %	SUPERVISOR %
4 or more	4.9	5.6	9.8
3	7.0	10.2	8.1
2	40.8	64.8	28.5
1	34.9	19.4	33.3
Never	3.8		16.3
Don't Know	7.0		
Missing Data	1.6		4.1

After a visit to the training station, the coordinator generally has a conference with the student and also with the supervisor. Again the coordinators' ratings were somewhat higher than those of the students. Slightly more than three-fourths of the coordinators reported always or often having a conference with the student after the visit, while only 52.4 of the students said coordinators always or often had a conference with them after the visit. A larger number of students reported occasionally (19.2 percent), seldom (10.5 percent), and never (11.5 percent) than did coordinators who reported 17.6, .9, and .9 percent, respectively. The majority of students considered the conferences as valuable or very valuable. Likewise, a larger number of coordinators reported always having a visit with the supervisor than did the supervisors: 72.2 percent of the coordinators always had a conference with the supervisor after a visit to the work station; 20.4 percent reported often. Supervisors, on the other hand, reported significantly less on this question: 48 percent reported always having a conference; 8.9 percent, often; 14.6 percent occasionally; and 18.7 percent failed to respond. In this category, coordinators generally listed higher ratings than did students and supervisors.

Questions were also asked to obtain information about supervisors' evaluation of students' work at the training station. About one-third of students reported two or three conferences each semester with their supervisor, with percentages spread quite evenly among the range of zero to six. It is important to note that 21.9 percent of the students reported never having a conference with their work-site supervisor. All three questionnaires asked how often do supervisors provide evaluation of training plan objectives to students. Again, a wide range of responses exists among

the three groups. More than 75 percent of coordinators reported always or often for supervisors' evaluation; while 75 percent of the supervisors reported often or occasionally; and student responses were quite evenly distributed among the five choices. These differences are illustrated in Table X.

TABLE X

Supervisors' Evaluation of
Student Training Plan Objectives

HOW OFTEN DO SUPERVISORS PROVIDE EVALUATION?	STUDENT %	COORDINATOR %	SUPERVISOR %
Always	11.4	45.4	8.1
Often	18.4	30.6	35.8
Occasionally	18.4	12.0	39.8
Seldom	12.4	4.6	7.3
Never	10.3	1.9	4.9
Missing Data	29.2	5.6	4.1

Opinions of Co-op Effectiveness. Four identical questions were asked of students, coordinators, and supervisors concerning their opinions of cooperative education. A large majority of all respondents agreed that cooperative education is effective in helping students reach their vocational goals, and ratings were quite consistent across the three questionnaires.

Likewise, ratings were extremely high for the question concerning increasing/decreasing cooperative education programs. Nearly 50 percent of the students and supervisors suggested increasing co-op, and 38 percent of the coordinators suggested this also. About 30 percent of supervisors thought co-op should be continued at the present level; 43.2 percent of students; and 50.9 percent of coordinators wanted to continue co-op at the present level. Very small percentages in each group suggested decreasing or discontinuing cooperative education.

In rating the quality of the content of all seminar and vocational courses, students and coordinators consistently gave these components high ratings. This rating by supervisors was approximately 20 percent less than the other two groups, but it still remained high. An explanation for the supervisors' lower rating is that 22.8 percent had no opinion on this question. Fair, poor, or very poor ratings

were minimal in all three groups. Ratings of the quality of coordination/instruction were very similar to those of the quality of content.

The comparisons of data from the four opinion questions are listed in Tables XI, XII, XIII, and XIV. High ratings and positive attitudes toward cooperative education were obvious in the analysis of these questions, plus data gathered in the telephone survey and the miscellaneous comments made by respondents.

TABLE XI

Comparison of Opinion of Effectiveness
Students, Coordinators, Supervisors

QUESTION: In your opinion, rate the effectiveness of co-op education in helping students reach their vocational goals.

	RESPONSE	STUD.	COORD.	SUPER.
Extremely Effective	A	34.9	39.8	22.0
Highly Effective	B	42.7	40.7	42.3
Somewhat Effective	C	17.6	16.7	26.0
Seldom Effective	D	1.6	1.9	1.6
Never effective	E	.8	.9	0.0
No Opinion	F	***	***	5.7
Missing Data		2.4	000	2.4

*** Option not included as a possible response.

TABLE XII

Comparison of Opinion of Effectiveness
Students, Coordinators, Supervisors

QUESTION: In your opinion, the number of co-op programs should be:

Increased	A	49.7	38.0	49.6
Continued at Same Level	B	43.2	50.9	30.1
Decreased	C	.3	3.7	000
Discontinued Altogether	D	000	2.8	000
No Opinion	E	6.2	***	17.1
Missing Data		.5	4.6	3.3

*** Option not included as a possible response.

TABLE XIII

Comparison of Opinion of Effectiveness
Students, Coordinators, Supervisors

QUESTION: In your opinion, rate the quality of the content of all seminar and vocational courses related to cooperative education programs.

Very Good	A	46.5	45.4	21.1
Good	B	42.6	37.0	39.8
Fair	C	8.1	8.3	10.6
Poor	D	.5	1.9	1.6
Very Poor	E	.3	000	000
No Opinion	F	2.2	***	22.8
Missing Data		.8	7.4	4.1

*** Option not included as a possible response.

TABLE XIV

Comparison of Opinion of Effectiveness
Students, Coordinators, Supervisors

QUESTION: In your opinion, rate the quality of coordination/instruction of cooperative education programs.

Very Good	A	48.6	46.3	22.8
Good	B	41.1	40.7	41.5
Fair	C	7.0	6.5	11.4
Poor	D	.5	.9	3.3
Very Poor	E	.3	1.9	000
No Opinion	F	1.6	***	17.9
Missing Data		.8	3.7	3.3

*** Option not included as a possible response.

Services to Special Needs Populations. Five or six questions were asked of each group concerning services available to special needs populations. The data indicate that students, coordinators, and supervisors are generally not aware of nor use such services. In this survey, less than 5 percent of cooperative education participants were identified as special needs populations. This percent is, however, generally consistent with identified special needs students in postsecondary vocational programs.

When asked to what extent the college encourages placement of co-op students in non-traditional jobs, 53.5 percent of students responded that they didn't know; 30.6 percent of coordinators and 65.9 percent of supervisors gave similar responses. Fewer "don't know" responses were recorded in regard to the extend the company/agency encourages placement of co-op students in non-traditional jobs: students, 34.3 percent; coordinators, 31.5 percent; and supervisors, 22 percent.

Similar frequencies of "don't know" responses were noted for the degree to which the college and employers make provision for special need co-op students. On the student questionnaire, students were instructed to skip these questions if they were not classified as special needs, therefore, few responses were recorded. About 60 percent of the coordinators reported that their college always or often made provisions for special needs students, but 30.6 percent reported they did not know what provisions were made by employers. Supervisors, on the other hand, reported the company/agency always (21.1 percent), often (10.6 percent), occasionally (23.6 percent), seldom (6.5 percent), and never (18.7 percent) made provisions for special needs students. The majority (67.5 percent) of the supervisors did not know what the college did for these students.

The data indicate that few special needs students are enrolled in postsecondary cooperative education programs, but the percentages are generally consistent with identified special needs students in postsecondary vocational programs. In addition, students, coordinators, and supervisors are generally not informed of services to these students.

Summary. In the overall analysis, data from the three questionnaires are generally consistent. Ratings from supervisors tend to be somewhat lower, and supervisors tend to be less knowledgeable and less informed of activities and procedures within co-op programs. Attitudes toward cooperative education and ratings of the various components are very positive, as reported by all three groups. Data analyzed separately for Mid-Management programs indicate these programs are significantly larger in numbers and different in requirements than are other vocational programs. Guidelines pertaining to training plans, seminar classes, and evaluation procedures are generally followed, but a wide variety exists in the manner and scheduling by which these are accomplished. The raw data are listed to the left of each multiple-choice response on the three questionnaires included in Appendices H, J, and M if further analysis and comparison are desired.

Analysis Follow-Up Data

One of the best ways to evaluate the effectiveness of a system is to examine the end product or results in relation to the stated goals and objectives of that system. In other words, has the system accomplished what it set out to do? When attempting to apply this principle to the evaluation of the effectiveness of cooperative education in Texas postsecondary institutions, several problems were encountered.

Definition of Effectiveness. First, it was difficult to establish a true definition of effectiveness in relation to goals and objectives because such goals and objectives either do not exist, are vague, or vary widely among programs that incorporate cooperative education as a component of vocational education. TEA guidelines outlined basic requirements for mid-management, office occupations, and internship programs (Appendix B). However because these are guidelines and not regulations, they were loosely followed by most institutions, and they really did not specify goals and objectives but rather organization and procedures.

VEDS. Secondly, in order to evaluate the end product, or students in this case, appropriate follow-up data must be collected in a regular and systematic manner. This is not routinely done in a way that specifically identifies students who participate in cooperative education. Federal legislation requires follow up of vocational students, which is done regularly in the state of Texas by means of the Vocational Education Data System (VEDS). Form VOC 114R85 reports the number of students enrolled in cooperative education and related apprenticeship programs. Follow-up information is reported on Form VOC 117R85, and it identifies the status of completers and leavers in vocational programs. The VEDS provides information concerning employment, education, relevance of employment to training, and other helpful facts. However, information in the VEDS does not specifically identify or correlate co-op enrollment with status of completers and leavers. Therefore, it was impossible to use the VEDS information to evaluate effectiveness of cooperative education in Texas postsecondary institutions.

Tex-SIS and VEES. Two other state follow-up instruments have been used on a voluntary basis in some institutions, one of which sheds some light on cooperative education. The Texas State Information System (Tex-SIS) has been used by a small number of institutions as a follow-up instrument for vocational education. But it did not identify cooperative education students in any way. The Vocational Education Evaluation System (VEES) was used on a voluntary basis as a follow-up instrument in the state for

four years, but was discontinued effective July, 1985. As a self-evaluation instrument, it passed through several stages of development and modification since its pilot test in the spring of 1981. The 1983-84 report, however, yielded follow-up information about cooperative students. During this period, ten postsecondary institutions (PSI) participated in the self-evaluation process and submitted data on 40 vocational instructional programs with cooperative components. Participation in cooperative programs for FY 1984 was reported at 7,962 postsecondary/adult students.

The VEES instrument consisted of questionnaires designed to allow PSIs to evaluate, among others, vocational instructional programs with a cooperative component. The VEES data indicated that all institutions evaluated their programs, services, and activities as either satisfactory or exemplary. Over 40 percent of instructional programs reported their performance as exemplary in removing biases of race and sex from instructional materials and objectives. More than 75 percent of programs with disadvantaged, limited English proficient, and handicapped students enrolled reported that the PSI did a satisfactory or exemplary job of providing special developmental services to enable these students to profit from vocational instruction. In addition, equal access and support services for women and other special needs populations were evaluated.

Examination of VEES frequency distributions showed that PSIs reported a need to improve in four main areas: use of local advisory councils, use of labor market information, use of follow-up information, and the provision of vocational non-instructional services. In particular, vocational instructional programs with a cooperative component reported a need to improve their use of student follow-up surveys to determine the level of student satisfaction with their training in preparing them for employment. However, as stated in the Summary Report of 1983-84 Vocational Education Evaluation System Data, May 1985, "Since the PSIs that conducted the VEES were not selected randomly, findings regarding their programs should not be generalized to those in the entire state." However, this information confirms the findings of the current research project concerning the need for better follow-up of cooperative education students.

Local Follow-Up Studies. Only a few local institutions conduct their own follow-up studies, and that is often done sporadically. Local follow-up data were solicited from fourteen institutions that were identified as having large enrollments in cooperative programs. St. Phillips College was the only institution that responded with local follow-up data, which were informally collected by the coordinator over a nine-year period. The summary

report submitted by Courtenay Atkins listed status of former students in regard to employment, education, applicability of training to current job, and other categories. Percentages of positive placement were generally high. Three other institutions submitted forms used for local follow up, but no data. Representatives from most colleges reported that no locally initiated follow-up was administered on their campuses. While attempting to collect local follow-up data, a trend surfaced that tended to indicate cooperative education coordinators were generally not involved with the follow up that is conducted by the college for vocational programs. For the most part, coordinators seemed to be unaware of follow-up studies of their students.

Summary. Confronted with these problems, using follow-up information as a means of evaluating effectiveness of cooperative education was not a viable alternative. In addition, existing follow-up data were supposed to be supplied by the postsecondary specialist at the funding agency. After the specialist was reassigned, the TEA Postsecondary Division dissolved, and responsibilities transferred to the Coordinating Board, little state assistance or direction were provided for the project. Due to budget constraints of the original contract, it was not the intention of the project to conduct follow-up studies, but rather to use existing data. When this data proved to be inadequate and/or unavailable, evaluation of the effectiveness of cooperative education based upon existing follow-up data was not possible in this project.

Changes at the State Level

Legislative action in the spring of 1985 transferred the responsibility for postsecondary vocational programs from the Texas Education Agency (TEA) to the Coordinating Board, Texas Colleges and University System. Effective September 1, 1985, Carol Ann Edwards, the TEA postsecondary Occupational Education Specialist, was reassigned, and the Division of Postsecondary Programs was dissolved at TEA. Responsibility for postsecondary vocational programs was transferred to the Coordinating Board under the supervision of the newly appointed Assistant Commissioner, Dr. Nellie Carr Thorogood. Many of the vocational programs that incorporate cooperative education were supervised by Program Director, Dr. Claudia H. Moore. During a transition period of about four months, little or no state supervision existed for the project. In December, 1985, the project facilitator contacted Dr. Thorogood to initiate communication with the Coordinating Board. On February 13, the facilitator met with Dr. Moore to discuss the procedures and products of the project. Objectives and procedures were explained, and it was agreed to continue as scheduled.

Presentation of Co-op Research Project at TEA-Sponsored Workshop

The objectives, procedures, conclusions, and recommendations of the cooperative education research project were presented at the TEA-sponsored Business and Management Occupations Workshop held in Houston on May 21-23. About 30 people, including Dr. Claudia Moore, were in attendance for the small-group session on May 22. The presentation included an explanation of the objectives and procedures, discussion of the recommendations, and questions from the audience. By their participation and questions, the group demonstrated a strong interest in the project.

Preparation of the Report

Quarterly reports were prepared for the periods ending September 30, December 31, and March 31 to keep the funding agency informed of progress on the project.

A final report was prepared to publish the objectives, procedures, results and recommendations of the project. The sections on results, conclusions, and recommendations were sent to the PAC for their review and input prior to the preparation of the final drafts. Their evaluation of these components was positive. Evaluation criteria for each of the components were rated on a one to five scale, and the various criteria were summarized into mean scores which are listed in Table XV. Complete data are listed on the evaluation sheet included in Appendix P. Input from the PAC was used to revise these section as needed.

TABLE XV

PAC EVALUATION OF ANALYSIS OF FOLLOW-UP DATA, RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

	MEAN on 1-5 Scale
Analysis of Follow-Up Data	4.53
Results and Accomplishments	4.47
Conclusions	4.33
Recommendations	4.47

.....Review the current status of cooperative education in Texas postsecondary institutions and define its goals and objectives. 4.15

.....Establish state guidelines to provide procedures which will facilitate uniform, minimal standards for postsecondary cooperative education. Allowances must be made for individual program needs. 4.30

.....If guidelines are developed they should include specific reference to the following components: 4.40

1. Definition, selection, and supervision of the training station
2. The preparation, implementation, and evaluation of student training plans
3. The inclusion of a seminar class
4. Methods of evaluating students' cooperative education work experience and training plan objectives
5. The coordinator's responsibilities toward the student, program, and supervisor
6. The supervisor's responsibilities toward the student, program, and coordinator
7. The maximum number of college credit hours awarded for cooperative education work experience in a two-year degree program
8. The number of work experience hours required to earn cooperative education credits

.....Improve means of communications among cooperative education participants. 4.35

.....Modify existing vocational follow-up studies to identify and report data concerning students enrolled in cooperative education components. 4.28

Ten copies of the final report were reproduced and delivered to TEA. A complimentary copy was sent to the Coordinating Board in care of Dr. Nellie Thorogood, Associate Commissioner of the Division of Community Colleges and Technical Institutes. Copies of the final report were mailed with thank-you letters to PAC and Review Committee members in appreciation for their participation in the project. Additional copies of the final report are available to interested individuals or state agencies on a cost-recovery basis from the Occupational Curriculum Laboratory.

Results & Accomplishments

As a result of this research project, data were gathered concerning the effectiveness of the cooperative education component in vocational education programs. This was accomplished by means of statewide surveys of students, coordinators, and work-site supervisors, plus analysis of the limited follow-up data that were available. A final report was prepared to publish the findings of this project.

Cooperative Education Surveys

Using input from the Project Advisory Committee (PAC), the project facilitator developed three questionnaires. Similar questions were prepared for students, coordinators, and work-site supervisors who were currently working with cooperative education programs. After the validation process involving 32 coordinators and pilot studies at two colleges, a total of 1,093 questionnaires were mailed on November 27 to the three groups across the state with a requested return date of December 20. The questionnaires were color-coded to facilitate ease in handling returning survey forms. Data from the survey were tabulated, analyzed, and used to draw conclusions about cooperative education and to formulate recommendations to the state governing agency.

Student Questionnaire. The student questionnaire was designed to solicit information from students concerning specific facts about and opinions of cooperative education. The questionnaire contained 43 questions and dealt with student information in the following eight basic categories:

- Demographic information
- Credit hours for co-op
- Educational and career goals
- Work experience
- Participation in a seminar class
- Effectiveness of training plans
- Effectiveness of evaluation measures
- Opinions of co-op effectiveness
- Services to special needs populations

The questionnaire also provided students with the opportunity to participate in a follow-up telephone survey. Students who wished to volunteer filled in their names, addresses, and telephone numbers. Otherwise, the survey was anonymous. A response rate of 83 percent yielded 370 usable questionnaires.

Coordinator Questionnaire. The coordinator questionnaire contained 42 questions and was designed to solicit information about students in the same basic categories as the student questionnaire. In addition, the coordinator's questionnaire requested data about the local program(s) and institution, plus the coordinator's past experience, work load, and contract conditions. A space for additional comments was included, in which many respondents took the time to offer constructive suggestions. This information was anonymous and participants were informed in advance that it would be confidential and used for research purposes only. Sixty-eight percent of the coordinators responded, yielding 108 questionnaires.

Work-site Supervisor Questionnaire. The work-site supervisor questionnaire also solicited similar information about students, the co-op components, plus demographic data about the supervisor and the business or company for which the student worked. This questionnaire contained only 25 questions and was intentionally kept short in an effort to make it as time efficient as possible. The information was anonymous to encourage frank and honest responses. A space for comments was provided, and many supervisors took the time to make remarks. A lower response rate from this group was expected and, indeed, occurred. Twenty-five percent of the supervisors returned usable questionnaires, for a net amount of 123. Even though reminder letters were sent early in January, and the deadline extended to January 31, questionnaires were returned as late as March.

Analysis of the Telephone Survey

In an effort to validate the written survey, a telephone survey was conducted of randomly selected co-op students who had participated in the original survey. The telephone survey was stratified by program to give proportional representation to each vocational area. Ten percent of the students who had returned questionnaires were contacted by telephone during the months of January and February. Responses from 40 students covering ten key questions were tabulated and computer analyzed. Generally the results of the telephone survey validated the responses on the written questionnaire. However, one question had been misunderstood and when clarified on the telephone interview, some students changed their response. This question dealt with the number of hours students were required to work at the training site to earn their co-op college credits. The telephone survey revealed that some students did not know how many hours they were required to work, but had listed the actual hours they worked. A question-by-question analysis of the telephone survey is listed in the procedures section.

Analysis of Follow-Up Data

The analysis of the follow-up data yielded little usable information. Several problems were encountered in the identification and collection of these data. Only one state level instrument, the VEES, provided specific information relating to vocational education programs with cooperative components. One of the recommendations of the 1985 VEES summary report was to improve the use of student follow-up surveys. Findings of this research project strongly support this VEES recommendation.

Reports

Quarterly reports were prepared and submitted to the Texas Education Agency (TEA) as a means of keeping the funding agency informed of progress on the project. At the conclusion of the project, a final report was prepared to publish the objectives, procedures, results, conclusions, and recommendations. Ten copies of the final report were submitted to TEA, and one copy was sent to the Coordinating Board, Texas College and University System. Copies of the final report were sent to members of the PAC and Review Committee for their information and personal use. Additional copies of the final report are available from the Occupational Curriculum Laboratory on a cost-recovery basis to interested individuals, colleges, or agencies.

Evaluation Procedures and Findings

Several evaluation measures were incorporated into the design of this project. A review of literature was conducted to ascertain pertinent information. A project advisory committee (PAC) was selected and utilized to provide input into the project design and to review and validate the survey instruments and recommendations of the final report. In addition, a statewide Review Committee validated the instruments and assisted in the identification of the survey population and administration of the questionnaires. A pilot study of the student questionnaire was conducted to further validate the instruments. Data were updated on the ETSU mainframe computer, and the analysis procedure was designed by knowledgeable personnel. The objectives and recommendations of the project were presented for review and critique on May 22 at the TEA-sponsored workshop in one of the small group sessions. Quarterly reports were submitted to keep TEA informed of progress on the project, and a final report was prepared to publish the objectives, procedures, results, and recommendations.

Review of Literature

A review of the literature was conducted to identify information and data pertinent to the project. General information was collected and reviewed in addition to specific state and local documents which provided data on state guidelines and follow-up studies. Information accumulated as a result of the review of literature provided a basis from which to design the survey instruments and proved helpful in establishing procedures for operations.

Advisory Committees

To ensure relevance and effective evaluation, two advisory committees were appointed to work with the project. The project advisory committee (PAC) was appointed using input from TEA Occupational Education Specialists in the Division of Postsecondary Programs and the project facilitator. Eight educators representing community college and technical institutes across the state and seven business people knowledgeable of cooperative education worked on the PAC. A 32-member review committee was appointed through input from local occupational/technical deans to provide broader review of materials and to assist in the administration of the survey. Working through the project facilitator, these two committees reviewed and validated the

materials developed by the project, and they were absolutely necessary for administering the survey. Members for both committees were selected using the following criteria: their knowledge and expertise in the area of postsecondary cooperative education, prior experience on advisory committees, recommendation by TEA staff and/or local administrators, and their willingness to serve. A complete listing of PAC and Review Committee members is included in Appendix C, and a map showing the statewide distribution of participants is illustrated in Appendix E.

The Review and Validation Process

A review and validation process was established for this project, and an accurate record-keeping system was designed. The survey instruments were reviewed and validated by members of the PAC and Review Committee, plus pilot tests with students and coordinators at two institutions. Data from the survey were tabulated and analyzed on the East Texas State University mainframe computer, the specific results of which are included in the section on procedures and several of the appendices. The analysis format was designed and implemented by personnel knowledgeable of statistics and computer analyses. The return rate for the survey was good, with a statewide distribution and an overall return rate of 53 percent, and a high for student returns of 79 percent, 68 percent for coordinators, and 25 percent for supervisors.

The objectives and recommendations for the cooperative education research project were presented on May 22 to about 25 or 30 educators at the TEA-sponsored Business and Management Occupations Workshop held in Houston. Drafts of the results, conclusions, and recommendations were sent to PAC members for review and validation prior to finalization. Revisions were made as needed. All aspects of the project design, operation, and recommendations were reviewed by the project consultant, Dr. James Tunnell, ETSU professor who specializes in community college programs.

Reports

Quarterly reports were prepared and submitted to TEA to keep the funding agency apprised of progress on the project. A final report was prepared to publish the objectives, procedures, results, and recommendations of the project. To ensure accuracy and high quality, all materials were prepared under the supervision of an experienced postsecondary curriculum specialist. Materials were reviewed by a professional editor and produced utilizing word processing equipment. Graphic arts and print shop personnel provided support for the project.

Conclusions and Recommendations

The primary purpose of this research project was to evaluate the effectiveness of cooperative education with the intention of making recommendations to the state governing agency regarding any needed changes as identified by the research. Criteria for this evaluation were based on adherence to TEA guidelines for the administration of cooperative training experiences; evaluation of students, coordinators, and supervisors as to students' benefits of the co-op experience; and follow-up studies of students who enrolled in cooperative components as a part of their educational preparation. To accomplish this objective, the Occupational Curriculum Laboratory, developed survey instruments based on TEA guidelines; conducted statewide surveys of students, coordinators, and supervisors involved in cooperative education; and analyzed existing follow-up data of former co-op students. The procedures and results have been stated previously; conclusions and recommendations are stated in this chapter.

CONCLUSIONS

The overwhelming conclusion of this research project is that cooperative education is active and functioning in Texas postsecondary institutions, and it commands a positive attitude from students, coordinators, and supervisors. All three groups participated in the survey and provided valid information that was, for the most part, consistent among the groups. The survey data and other investigations indicated that a wide variance exists among cooperative education components at individual campuses and among programs within campuses. Few state guidelines exist for cooperative education, and those that are delineated by the Texas Education Agency in the Guide for Administration of Postsecondary Occupational Education and Technology Programs in Texas have, at times and in some institutions, been ignored. An Instructor-Coordinator's Handbook for Marketing and Distribution Program was prepared under a TEA-grant in 1981 and was distributed at subsequent mid-management workshop. As a result, guidelines for Mid-Management programs are more definitive, but as guidelines and not regulations, adherence to them has been considered optional by administrators at some local institutions.

In addition, a general trend indicates that supervisors were less informed and knowledgeable about co-op programs and activities than the other two groups. This finding reoccurred throughout the data and resulted in a recommendation to encourage increased communication. These general conclu-

sions have been expanded and developed into specific recommendations which are discussed in detail in the following sections.

A number of factors indicate that cooperative education is actively functioning in Texas postsecondary institutions. When contacted, a high percentage of occupational/technical deans suggested names of individuals to serve as a contact person on their local campus for the cooperative education research project. More than half of Texas postsecondary districts were represented in the study, and participation was good among the students, coordinators, and supervisors. When these three groups were asked to express their opinions concerning the effectiveness of cooperative education and its future status, very positive ratings were recorded by a majority of the respondents. Some suggested increasing the number of cooperative education programs. Response from the telephone survey yielded similar results. The overall attitude toward cooperative education was very positive.

The survey data and other investigations indicated that a wide variance exists among cooperative education components at individual campuses and among programs within campuses. Particular differences were noted between Mid-Management programs and other vocational programs with cooperative education components. Mid-Management programs require or allow students to take as many as four semesters of cooperative education. Most other programs suggest co-op for students' last semester as a culminating experience to unite classroom activities with relevant work experience. As a result, management students have more credit hours of co-op work experience. In addition, the philosophy of Mid-Management suggests the training of students for management positions within the same company in which they have worked previously. Therefore, these students tend to be older, have more years of work experience related to their career and/or educational goals, and have worked full-time at their training station for many months or even year. Mid-Management had requirements pertinent to their particular program area, and students in this program had unique needs. Students enrolled in criminal justice programs also had different needs in that they usually worked without pay in voluntary positions. Different requirements and needs were noted among the vocational programs that incorporated cooperative education at different campuses and among programs within an individual institution.

The data of the survey indicated that the traditional goals and objectives of cooperative education may not be as applicable today as they were in the past. The review of the literature indicated that a traditional goal of cooperative education was to provide related work experience for young and/or inexperienced workers. This is, indeed, a worthy goal and should be continued. However, data from the

survey indicated that some students who participated in co-op were not necessarily young or inexperienced. About half were in the 20 to 30 age group and had several years of work experience prior to entry into cooperative education. A portion of this previous work experience was related to their career and/or educational goals. In addition, students are using their full-time, regular employment as their training station, particularly in Mid-Management programs. Most students find their own jobs with limited placement of students by the coordinator. Analysis of co-op employment practices identified in the survey generally do not parallel those of traditional cooperative education programs nor do they follow current TEA guidelines. Few state guidelines exist for postsecondary cooperative education, and those that do exist are vague and not followed by all institutions.

Numerous difficulties were encountered in identifying and utilizing existing follow-up information to evaluate the effectiveness of postsecondary cooperative education. Existing methods of collecting data at the state level generally do not specifically identify students enrolled in vocational programs with co-op components. In addition, few institutions conducted local follow-up studies. Therefore, evaluating the effectiveness of cooperative education based on follow-up studies was less than satisfactory.

Recommendations

Five specific recommendations were generated as a result of this research project. These deal primarily with the development of appropriate, state-level goals and guidelines for cooperative education in postsecondary vocational programs. It is emphasized, however, that if goals and guidelines are adopted by the state governing agency, they should be general in nature and provide for differences among programs and institutions.

As a result of legislation enacted in 1985, responsibility for the supervision of postsecondary vocational/technical programs was transferred from the Texas Education Agency (TEA) to the Coordinating Board, Texas College and University System, effective September 1, 1985. However, funding for this postsecondary research project continued under TEA for the remainder of the fiscal year, and reports were delivered to that agency. Inasmuch as the Coordinating Board now supervises postsecondary vocational/technical programs, it is recommended that TEA share with the Coordinating Board the results of this project. The Occupational Curriculum Laboratory will send one complimentary copy of the final report to the Coordinating Board in care of Dr. Nellie Carr Thorogood, Assistant Commissioner, Division of Community Colleges and Technical Institutes.

RECOMMENDATION:

.... Review the current status of cooperative education in Texas postsecondary institutions and define its goals and objectives.

The data of this project indicate that the traditional goals and objectives of cooperative education may not be as applicable today as they were in the past. Analyzing the needs, goals, and objectives of programs and providing updated, relevant objectives and guidelines for these programs would strengthen cooperative education in Texas postsecondary institutions. Data from this research and review of the literature indicate a number of possible objectives, some of which are traditional, and others that reflect the realistic aspects that are currently in practice. Some or all of the following goals and objectives identified in the literature and this research data may be considered for cooperative education in Texas postsecondary institutions. The following twelve examples relate to students enrolled in cooperative education:

1. The opportunity to develop a realistic understanding of the world of work.

2. The opportunity to acquire positive attitudes about work, school, and society.

3. The opportunity to apply knowledge and skills learned in the classroom to real business/industry situations.

4. The opportunity to learn and apply occupational skills and practical knowledge.

5. The opportunity to gain relevant work experience which will enhance placement upon completion.

6. The opportunity to learn company practices, policies, and procedures.

7. An opportunity to develop social, interpersonal, and leadership skills.

8. The opportunity to fulfill professional degree or certification requirements.

9. The opportunity to enhance career development and advancement.

10. The opportunity to earn all or part of their educational expenses.

11. The opportunity to earn credit toward graduation.

12. An incentive to remain in or return to school.

In addition to the objectives related to students which are listed above, the following goals, as identified in the literature, would be advantageous to the college and the business community:

1. Build ties between the college and the community and increase participation with business and industry.

2. Improve faculty quality, update and enhance programs, and provide information for vocational curricula by exposure to current business/industry procedures and equipment.

3. Provide state-of-the-art equipment and realistic working conditions at the training site that are not feasible in the educational laboratory.

4. Provide employers with a flexible pool of part-time workers who are better trained and more highly motivated.

5. Provide opportunities for employers to view workers' skills, attitudes, and work habits prior to regular employment.

6. Provide an opportunity for business/industry input into curricular content of vocational programs.

RECOMMENDATION:

.... Establish state guidelines to provide procedures which will facilitate uniform, minimal standards for postsecondary cooperative education. Allowances must be made for individual program needs.

Many differences and variations exist in cooperative education within and among institutions. This is primarily due to the fact that cooperative education is not a program, but rather a component of many vocational programs. These vocational programs differ in content, occupational requirements, student needs, instructional strategies, and many other factors. When co-op is attached to a vocational program, it takes on the character and nature of that program. This accounts for much of the program-to-program variation in organization and procedures identified in this research project. Variations within program areas at different insti-

tutions, however, may be due to lack of state-level guidelines in some program areas and failure to adhere to stated TEA guidelines at some institutions.

A certain amount of standardization and uniformity in terminology, procedures, and organization would be beneficial to the state governing agency, local institutions, students, and business/industry participants. Such guidelines would facilitate better communication among state staff and among the various local participants. Criteria for evaluating and monitoring vocational programs with cooperative components could be established based on the guidelines. Such guidelines would also be useful to clarify contact-hour reimbursement and to provide equitable funding rates for state institutions. It must be emphasized again that state guidelines should be general in nature and allow for the differences among programs. However, such guidelines are needed to increase the efficiency of operation at both state and local levels and to ensure quality experiences for all participants.

RECOMMENDATION:

.... If guidelines are developed they should include specific reference to the following components:

1. Definition, selection, and supervision of the training station
2. The preparation, implementation, and evaluation of student training plans
3. The inclusion of a seminar class
4. Methods of evaluating students' cooperative education work experience and training plan objectives
5. The coordinator's responsibilities toward the student, program, and supervisor
6. The supervisor's responsibilities toward the student, program, and coordinator
7. The maximum number of college credit hours awarded for cooperative education work experience in a two-year degree program
8. The number of work experience hours required to earn cooperative education credits

1. Definition, selection, and supervision of the training station

The training station is a key element in cooperative education. It is here that students put into action the concepts, principles, and skills they have learned in the classroom, and where they gain valuable on-the-job training that enhances their educational experiences. Selection of a training site that will accomplish these goals is crucial to students' successful completion of their cooperative education experience. Local postsecondary institutions should assume responsibility for the type, quality, and level of training rendered by each sponsoring business or agency. Ideally, the training site will provide structured experiences related to students' occupational objectives; practice and reinforcement of occupational and related skills; and opportunities to develop and demonstrate good work habits, attitudes, and interpersonal relation skills. Adequate supervision and direction should be provided by the company or agency to facilitate effective training that complements educational experiences. Of course, the training site must maintain safe and healthful working conditions and provide equal employment opportunity for all students regardless of sex, race, religion, or national origin. Data from the survey indicated that most students were employed prior to entering cooperative education, and placement of students at training sites was not a problem.

2. The preparation, implementation, and evaluation of student training plans.

The literature indicates that preparation and implementation of training plans should be a required component of cooperative education. It is through the training plan that coordination occurs among the student, supervisor, coordinator, and related vocational instructors. The training plan should detail specific duties and tasks to be learned at the training site and within the school program. Training plan objectives then provide criteria for evaluating students' progress. In addition, they should suggest time frames for the accomplishment of identified learning objectives and delineate the responsibilities of students, employers, and the school. Data from the survey indicated that training plans had been prepared in a timely manner for most students, and the majority of students, coordinators, and supervisors agreed that they were effective in coordinating classroom instruction with skills learned on the job. The data identified no major problems in this area; however, state guidelines for minimum requirements and suggested format would be helpful in standardizing procedures.

3. The inclusion of a seminar class

Wide variations were observed in the methods for incorporating and implementing a seminar class in cooperative education programs. Most students were enrolled in such a class and met on a weekly basis. However, some met monthly, bimonthly, or when meetings were scheduled by the coordinator, and some were not enrolled at all. The majority of students considered the seminar class to be valuable. If organized effectively, the seminar should provide regular contact between students and the coordinator. It is also a convenient place to disseminate information about co-op requirements and provide instruction on such topics as work habits, attitudes, interpersonal relation skills, job acquisition techniques, and similar subjects. The seminar class can provide benefits for students and should be incorporated into cooperative education in postsecondary institutions.

4. Methods of evaluating students' cooperative education work experience and training plan objectives

The data indicated that, on the average, coordinators visited students' training sites once or twice during the semester and usually had conferences with students and supervisors. Also as a means of evaluation, supervisors had conferences with students two or three times during the semester. However, more than half of the supervisors did not know what part their evaluation played in determining students' final grades. Evaluation of students' cooperative education work experience and training plan objectives should be done on a regular basis by both the supervisor and the coordinator as a means of providing feedback of student progress and information for evaluating the effectiveness of the training site. Specific means of evaluation should be left to the discretion of the local institution, but should be outlined in advance and published for distribution among students, supervisors, and interested college personnel. Evaluation is an important part of the education/training cycle and should receive diligent consideration at the local level.

5. The coordinator's responsibilities toward the student, program, and supervisor

6. The supervisor's responsibilities toward the student, program, and coordinator

To facilitate efficient administration and coordination of cooperative education components, the general responsibilities of both coordinators and supervisors should be outlined. State guidelines concerning these responsibilities can be as general or specific as the deemed necessary. How-

ever, local colleges should be encouraged to establish institutional guidelines as well as program-specific responsibilities. These should be published and distributed so that all participants are thoroughly aware of their responsibilities to students, coordinators, supervisors, programs, and the institution. Survey data repeatedly indicated that supervisors, in particular, were not aware of co-op activities and procedures. Clear delineation of participants' responsibilities would help programs operate more efficiently and effectively.

7. The maximum number of college credit hours awarded for cooperative education work experience in a two-year degree program

8. The number of work experience hours required to earn cooperative education credits

Wide variation and confusion concerning the number of college credit hours awarded for co-op work experience was identified by the survey. Some students indicated that they did not know how many hours they were required to work to earn co-op credits. The majority of schools allow five to eight credits for co-op to be applied to a two-year degree, while other institutions award fifteen or more. For the most part, this wide range is due to the fact that Mid-management students are required to take four semesters of cooperative education for a two-year degree while students in other programs usually take only one semester. Input from the Project Advisory Committee (PAC) suggests the following scale as general guidelines for awarding co-op credits: for every five hours per week of co-op work experience, students should receive one hour of college credit, with a maximum of twenty hours of work per week counting for four credits each semester. Maximum number of credits and semesters allowed for specific program areas should be determined after a complete survey of current practices and input from cooperative education educators. Standard guidelines in this area would facilitate lateral articulation among institutions and ensure equitable awarding of credits to cooperative education students.

RECOMMENDATION:

.... Improve means of communication among cooperative education participants.

The data provided by the survey and the analysis of follow-up information indicated that a lack of awareness exists among some cooperative education participants. All three groups showed little awareness of special needs populations and services that may be available to them.

Coordinators from program to program within an institution were not always aware of what other programs were doing. Coordinators had little information concerning follow-up studies conducted with their students or the results and distribution of these data. The telephone survey revealed that students had not, in several cases, understood the terminology used on the written survey, and when clarified, they changed their responses. In addition, some were unaware of specific information related to co-op requirements, such as the number of hours of work experience that were required to earn their college credits. Work-site supervisors demonstrated the greatest lack of awareness of co-op procedures, organization, and terminology. For thirteen questions that provided an option of "Don't Know," an average of 30 percent of the supervisors chose this response. It is logical that supervisors would be less informed about cooperative education activities and procedures because they deal with these only as a small part of their total responsibilities. However, if they had a better knowledge of cooperative education and their responsibilities toward the institution and the student, training would be more productive for the student and efficient for the supervisor.

The cooperative education coordinator, working as the pivotal focus among college administrators, related vocational instructors, co-op students, and work-site supervisors, is the logical person to develop and implement the needed communication. This might be accomplished through written publications, such as a co-op handbook or student manual; more thorough dissemination of information during the seminar class; increased visits to the training site; more frequent conferences with students and supervisors; exchange of information with pertinent college personnel concerning follow up of vocational students; and generally working to promote good public relations for cooperative education in the college and local community. An increased awareness of the needs of handicapped, disadvantaged, limited English proficient, and other special populations should also be encouraged. To ensure that coordinators are fully qualified to perform these duties, inservice workshops or other staff development activities should be provided for personnel who work with cooperative education. Enhanced communication would surely increase the efficiency of the total program.

RECOMMENDATION:

.... Modify existing vocational follow-up instruments to identify and report data concerning students enrolled in cooperative education components.

Follow up of vocational students is mandated by federal legislation, and this is done at the state level by the Vocational Education Data System (VEDS). However, information from this reporting system is not specific enough to identify placement and/or success of cooperative education students. As of the date of this report, no state agency collects and analyzes data that would accomplish this objective. In addition, little organized follow up is done by local institutions. Therefore, follow-up data are not available that would be usable in evaluating the effectiveness of postsecondary cooperative education. Yet, if available, such information would be very valuable to vocational/technical deans, vocational instructors, and in particular, to co-op coordinators when planning new or revising current vocational programs that incorporate cooperative components.

Without a great deal of additional time and effort, a simple coding system could be devised for the VEDS instrument at the local level to identify the follow-up data of students who were enrolled in cooperative education. (Currently, when the VEDS data is compiled and summarized at the state level, such identification is impossible.) Then, this data could be tabulated and analyzed separately, producing for cooperative education the same kinds of data generated for vocational programs. Working with college personnel who conduct the VEDS follow-up study, the co-op coordinator could provide names of former co-op students and assist with the follow-up study. Information generated from such a study should be shared with the cooperative education coordinator and any other pertinent vocational personnel.

SUMMARY

Cooperative education as it exists in Texas postsecondary vocational programs commands a positive attitude from students, coordinators, and supervisors. Educators across the state demonstrated an interest in and concern for this research project to evaluate the effectiveness of cooperative education. As a result of their interest and activities of this project, data have been gathered and analyzed, conclusions drawn, and recommendations presented. The project was developed with diligence and sincere interest in an effort to determine the effectiveness of the cooperative training component in postsecondary vocational/technical programs. The review of literature presented a picture of cooperative education in general. The survey data primarily describe the state of the art of Texas postsecondary cooperative education. Evaluation based on existing follow-up studies was difficult and yielded little usable information. The combined data provided a base from which to draw conclusions and make recommendations.

The recommendations that have been presented primarily suggest a review of the goals and objectives of cooperative education as it currently operates in Texas postsecondary institutions and develop general guidelines for its administration and operation. Using the data presented herein and any other information deemed pertinent, the governing agency should decide whether to develop such goals, objectives, and guidelines in an effort to standardize operations, or whether to allow local institutions to continue to operate cooperative components at their own discretion as they have in the past. Past operations have proved to be reasonably successful. The data of the project generally indicate a very positive attitude toward cooperative education as it presently exists. The data also showed a wide variation among and within programs, among and within institutions, and in the degree to which institutions adhere to TEA guidelines. Implementation of all or part of these recommendations is left to the discretion of the Coordinating Board which governs postsecondary vocational/technical programs and cooperative education as a component of these programs.

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Appendix A

GLOSSARY

Campus: A division of the school system consisting of one or more teachers providing instruction of a defined type to a group of students housed in a school plant of one or more buildings.

Cooperative Education (Tile VIII, Higher Education of 1965, as amended by P.L. 96-374): An educational approach that provides alternating or parallel periods of classroom study and supervised public or private employment. Such a program is characterized by (1) a written training agreement between an institution of higher education, a student, and an employer; (2) work experience related to the student's course of academic study and career goals; (3) alternation between class attendance and work planned and supervised to further the student's education and employability; and (4) employment in compliance with federal, state, and local laws.

Cooperative Vocational Education (Vocational Education Act of 1963 aamended by Title II of the Education Amendments of 1976, P.L. 94-482): A program of vocational education that provides, through written cooperative arrangements between schools and employers, instruction that includes required academic courses and related vocational instruction. These two experiences are planned and supervised by schools and employers so that each contributes to students' education and employability. Work periods and school attendance may be on alternate half days, full days, weeks, or other periods.

Coordination: The process of integrating the administrative, organizational, and instructional activities of cooperative education programs.

Coordinator: An educator who coordinates school and occupational experiences for students.

Disadvantaged: A person (other than handicapped) who meets the following definitions:

"Economically disadvantaged"

(1) Family income is at or below national poverty level
(2) Participant or parent(s) or guardian(s) of the participant is unemployed

(3) Participant or parent(s) or guardian(s) of participant is recipient of public assistance
(4) Participant is institutionalized or under state guardianship

Operationally, economic disadvantaged can be determined by reporting students who are participating in a free or reduced lunch program, AFDC (Aid to Families of Dependent Children) program, or Work Study program.

"Academically Disadvantaged"

(1) Lacks reading and writing skills
(2) Lacks mathematical skills
(3) Performs below grade level

Operationally, academic disadvantaged can be determined by reporting students enrolled in remedial programs, or performing below grade level on standardized tests, or failing a grade.

Handicapped: A person who is in any one of more of the following eleven (11) categories:

(1) Mentally Retarded - means significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period of the child, which affects adversely a child's educational performance.

(2) Hard of Hearing - means a hearing impairment, whether permanent or fluctuating, which affects adversely a child's educational performance, but which is not included under the definition of "deaf" in this section.

(3) Deaf - means a hearing impairment which is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which affects adversely the child's educational performance.

(4) Speech Impaired - means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, which affects adversely a child's educational performance.

(5) Visually Handicapped - means a visual impairment which, even with correction, affects adversely a child's educational performance. The term includes both partially seeing and blind children.

(6) Seriously Emotionally Disturbed - is defined as follows:

(a) The term characterizes a student who exhibits one or more of the following characteristics over a long period of time and to a marked degree, which affects adversely his/her educational performance.

* An inability to learn which cannot be explained by intellectual, sensory, or health factors

* An inability to build or maintain satisfactory interpersonal relationships with peers and teachers

* Inappropriate types of behavior or feelings under normal circumstances

* A general pervasive mood of unhappiness or depression

* A tendency to develop physical symptoms or fears associated with personal or school problems

(b) The term does include students who are schizophrenic or autistic. The terms does NOT include students who are socially maladjusted, unless the socially maladjusted students also are determined to be seriously emotionally disturbed.

(7) Orthopedically Impaired: A severe orthopedic impairment which affects adversely a student's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by diseases (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, fractures or burns which cause con-tractures).

(8) Other Health Impaired: Limited strength, vitality or alertness, due to chronic or acute health problems such as heart conditions, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes affecting adversely a student's educational performance.

(9) Specific Learning Disability: A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

The term does NOT include students who have learning problems which are the result primarily of visual, hearing, or motor handicaps, of mental retardation, or of environmental, cultural, or economic disadvantage.

(10) Deaf/Blind: Concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind students.

(11) Multihandicapped: Concomitant impairments (such as mentally retarded/blind, mentally retarded/orthopedically impaired, etc.), the combination of which causes such severe educational problems that the student cannot be accommodated in special education programs solely for one of the impairments. The term does NOT include deaf/blind students.

Instructional Program: A vocational instructional program designed to: (1) prepare secondary and postsecondary vocational students for entry-level employment in a specific occupation, (2) prepare secondary and postsecondary vocational students for the occupation of homemaking, (3) prepare secondary and postsecondary vocational students for advanced technical training, and (4) provide job upgrading and supplemental skill training to adult students.

Limited English Proficiency (LEP): Any member of a national origin minority (e.g., Spanish, Chinese, Italian) who does not speak and understand the English language in an instructional setting well enough to benefit from vocational studies to the same extent as a student whose primary language is English. The chief administrative official shall determine the method and the staff persons responsible for making the identification.

Postsecondary Institution (PSI): A nonprofit institution legally authorized to provide postsecondary education within a state for persons 16 years of age or older who have graduated from or left elementary and secondary school. Included specifically in Texas are Junior Colleges, Community Colleges, Texas State Technical Institutes, and the two-year campuses of Lamar University

Program Completer: A student who finished a planned sequence of courses, services, or activities designed to meet a vocational occupational objective that taught entry-level job skills. Also included are students who completed a course which, by curriculum design and program intent, provides the student with entry-level job skills as determined by the institution. This person must have met all the requirements of the institution for program completion whether or not he or she graduated from the institution.

Program Leaver: Anyone who has been enrolled in and attended a vocational education program and has left the program and institution without completing the program. This includes persons who leave the program voluntarily before its formal completion because they have acquired sufficient entry-level occupational preparation to work in the field, and who have taken jobs related to their training.

Related Vocational Instruction: Instruction specifically designed to improve personal and social skill, provide needed basic education (developmental), and develop relevant occupational skills and knowledges. Instruction should be regularly scheduled, complement occupational learning experiences, and be planned and developed to meet the specific needs of each student. Instruction should include occupational information and related work-adjustment skills.

Student (Higher Education Act of 1965, as amended): A person enrolled in a postsecondary institution (other than by correspondence) who is enrolled in a degree program of not less than two years and carries at least half the academic work load required of persons who are full-time degree candidates.

Student-Learner (Vocational Education Act of 1963, as amended): A person enrolled in a cooperative vocational education program who alternates instruction in school with a job in any occupational area.

Training Agreement: A written agreement that outlines the responsibilities of the student and employer. It is approved by the student, employer, teacher-coordinator, and parent or guardian.

Training Plan: An educational plan often used in conjunction with a training agreement. Specific job tasks to be learned on the job and in the educational institution are included, along with an organized plan for the orderly acquisition and progression of job, duties, and tasks.

Training Station: An organization providing on-the-job training experiences for students enrolled in a cooperative education program.

VEDS: Acronym for the national Vocational Education Data System. VEDS is annually collected data pertaining to the enrollment and completion of vocational students. Through the VEDS, college districts report all vocational programs offered, number of students enrolled in each, and the employment status of students who have completed the program.

VEES: Acronym for the Vocational Education Evaluation System. its purpose is to provide self-evaluation data to PSIs, to collect statewide evaluation data, and to comply with State Board and federal requirements.

Vocational Education: Vocational instructional programs and other programs, services, and activities which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation (upgrading and retraining) for a career requiring other than a baccalaureate or advanced degree. Instructional programs may be designed for (1) persons in high school, (2) persons who have completed or left high school and who are available for study in preparation for entering the labor market, (3) persons who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment, (4) disadvantaged persons, (5) handicapped persons, and (6) persons of limited English proficiency.

Vocational Objective: The intended occupational outcome of training and other preparation as stated or implied by the individual student. The vocational objective is usually stated in terms of a specific occupation or cluster of occupations.

Work-Site Supervisor: An individual directly responsible for supervising students' on-the-job learning experiences.

Appendix B

TEA PROGRAM STANDARDS

Series 1000 - Programs

1410.5
Cooperative Office Occupations

1. Two-year Office Occupations programs may be "cooperative" programs; that is, students in the programs may have a training station in a business or industry during their last two semesters.

2. Each program should include at least one scheduled one-hour seminar each week in addition to other regularly scheduled classes.

3. Students must work at their training stations not less than 15 hours per week. Not more than 20 hours per week will be accepted by the Texas Education Agency for contact hour credit.*

4. Colleges must assume responsibility for type, quality, and level of training rendered by each sponsoring firm or business.

5. Office Occupations coordinators will have on file a training plan for each student. The format for training plans is included in Appendix A. Training plans will be signed by the student, employer, and coordinator.

6. The students' progress should be under the periodic surveillance of the sponsoring firm and the Office Occupations coordinator.

7. Instructors of Office Occupations programs will normally be employed for a minimum of 10 months per year, with the beginning date of employment not later than August 1. An instructor who has teaching duties outside the Office Occupations program will not be approved to supervise the internship portion of the program.

*Refer to 1052, Internship

TEA PROGRAM STANDARDS

Series 1000 - Programs

1321.5
Mid-Management Requirements

Mid-Management:

1. Mid-Management programs must be "cooperative" in nature, i.e., each student in the program must have a training station in a business or industry.

2. Each program should include at least one scheduled one-hour seminar each week in addition to other regularly scheduled classes.

3. Students must work at their training stations not less than 15 hours per week. Not more than 20 hours per week will be accepted by the Texas Education Agency for contact hour credit.*

4. Internship or cooperative training for Mid-Management students must be on, at least, the supervisory or middle management level. Exceptions may be made if a basic training period is necessary before a student may enter a higher level of training.

5. Colleges must assume responsibility for type, quality, and level of training rendered by each sponsoring firm or business.

6. Only those students with a declared major in Mid-Management will be admitted to the internship portion of the program.

7. Mid-Management coordinators will have on file a training plan for each student. Format for training plans is included in Appendix A. Training plans will be signed by the student, employer, and coordinator.

8. Students' progress should be under the periodic surveillance of the sponsoring firm and the Mid-Management coordinator.

9. Instructors of Mid-Management programs will normally be employed for a minimum of 10 months per year, with a beginning date of employment not later than August 1. Generally, an instructor who is employed elsewhere or who has teaching duties outside the Mid-Management program will not be approved to supervise the internship portion of a program. An exception will be made for one part-time coordinator when at least two full- time instructor-coordinators are already employed by the local institution.

*Refer to 1052, Internship

TEA PROGRAM STANDARDS

Series 1000 - Programs

1052
Internship

1. The hours of internship, cooperative, practicum, or other meaningful work experience should normally be between the hours of 8:00 a.m. and 6:00 p.m., Monday through Friday. If the student works at other than the normal working hours, or on Saturday, Sunday, or a holiday, the time may be counted as internship only if a full-time qualified faculty member is coordinating the work experience.

2. Only students working toward a degree or certificate will be counted in determining the contact hours generated in the internship portion of the program.

3. Students must work at their training station at least 15 hours per week. No more than 20 hours per week will be accepted for contact hour credit. Exceptions will be made only in cases where program approval stipulates otherwise.

4. Students who are employed full time or who have previous work experience may receive advanced standing credit in lieu of taking the internship portion of a program. An appropriate evaluation will be administered by the institution granting advanced standing credit.

5. It is recommended that students who are employed full time not use their place of employment as a training station. In those cases where this is permitted, particular care must be exercised to ensure that the student follows an acceptable training plan and is engaged in appropriate training activities.

6. In most instances, military installations, and other government and industrial complexes of high security classification are not acceptable as locations of internship training stations. It will be the responsibility of each institution not to place students in training stations that cannot be supervised properly and where students cannot learn from changing work experiences.

7. The supervision of 20 students in training stations is the optimum number for an instructor-coordinator to supervise. In those instances where geographic distances between training stations, or the grouping of students in a single business complex permits the supervision of more than 20 students, the instructor's teaching load may be adjusted accordingly. In no case will an instructor supervise more than 40 students.

8. A training plan for each internship student must be on file at the office of the program coordinator or supervisor within 30 days following employment. The format for training plans is included in Appendix A. If locally devised plans are used, they must include all information required on the TEA plan.

9. Each college must assume responsibility for the quality of training provided by the sponsoring business firm.

Appendix C

COOPERATIVE EDUCATION

PROJECT ADVISORY COMMITTEE

Howie Katz
College of The Mainland
Texas City, Texas

Irving Panzer
Houston Community College
Houston, Texas

Irma Jones
Texas Southmost College
Brownsville, Texas

James K. Henderson
North Harris County Community College
Houston, Texas

Jerry Zavesky
Victoria College
Victoria, Texas

Patsy Flowers
Houston Community College
Houston, Texas

Michael Ross
Dallas County Community College District
Dallas, Texas

Dr. Ruth McQueen
Amarillo College
Amarillo, Texas

Jerry Massa
Mastic Corporation
Denison, Texas

Donald G. Sellers
Williamson-Dickie Apparel Manufacturing
Uvalde, Texas

Sycily Lattimore
Black River Nursery
Levelland, Texas

Lindsay King
H & W Supply
Corsicana, Texas

Barbara Pickelman
San Luis Hotel
Galveston, Texas

Shep Kohler
Alliance Manufacturing Company
San Antonio, Texas

Rick Matthews
Matthews Air Conditioning
Corpus Christi, Texas

REVIEW COMMITTEE

Fred Blake
Bee County College
Bee, Texas

Patti Bradshaw
Eastfield College
Mesquite, Texas

James E. Meador
Richland College
Dallas, Texas

Dr. Marie Dalton
San Jacinto College
Central Campus
Pasadena, Texas

Art Curry
El Paso Community College
El Paso, Texas

Jerry Moller
Frank Phillips College
Borger, Texas

Karla Back
Galveston College
Galveston, Texas

Jan Kincade
Grayson County College
Denison, Texas

Wayne Taylor
Henderson County Junior College
Athens, Texas

Dr Marilyn Liddell
Houston Community College
Houston, Texas

Doris Huibregtse
Howard College at Big Spring
Big Spring, Texas

Enriqueta Salinas
Laredo Junior College
Laredo, Texas

Clara King
Midland College
Midland, Texas

Don Perry
Mountain View College
Dallas, Texas

Jim Kennedy
Navarro College
Corsicana, Texas

James Ferguson
Navarro College
Corsicana, Texas

James D. Bowman
North Harris County College
Houston, Texas

Juanita Price
San Jacinto College-South Campus
Houston, Texas

Cindy Brown
South Plains College
Levelland, Texas

Bill Bigham
South Plains College at Lubbock
Lubbock, Texas

Robert Conrey
Southwest Texas Junior College
Garner Field Road
Uvalde, Texas

Courtenay Atkins
St. Philip's College
San Antonio, Texas

Daisy Dubose
TCJC-Northeast Campus
Hurst, Texas

Bill Hermon
Temple Junior College
Temple, Texas

Charles Morley
Texarkana Community College
Texarkana, Texas

Roy Savage
Texas State Technical Institute
Amarillo Campus
Amarillo, Texas

Gene McMaster
Texas State Technical Institute
Waco Campus
Waco, Texas

Dr. Bob Gaines
Tyler Junior College
Tyler, Texas

Dr. Leroy Estes
Vernon Regional Junior College
Vernon, Texas

Shirley Farrow
North Lake College
Irving, Texas

Ray Rodriguez
Palo Alto College
San Antonio, Texas

Charles Norton
Wharton County Junior College
Wharton, Texas

Appendix D

Minutes
Cooperative Education
Project Advisory Committee Meeting

The Project Advisory Committee (PAC) meeting was held in Dallas at the North Park Inn convention facilities on September 30, 1985. The meeting started at approximately 9:15 a.m. with all members present.

Dr. Bill Barnes, OCL Director, welcomed the group and explained the function of the OCL and the reasons for having advisory committees.

Donna Hines, co-op project coordinator, explained the objectives and outlined the research design of the project. The group agreed on a random question format for the survey questionnaire. The schedule and planned activities were discussed. PAC members suggested the following changes.

1. The major survey was planned for January. However, that time period is too near the start of the semester and students would probably not have sufficient information to complete the questionnaire. Therefore, the survey time will be moved to late November, provided the survey instrument can be revised, field reviewed, and a pilot study conducted by that time.

2. The project coordinator had planned to mail the questionnaires to co-op coordinators, work-site supervisors, and students. PAC members suggested that co-op coordinators administer the questionnaires to a random sample of co-op students in their seminar classes. This would increase the percentage of student returns. Questionnaires will be mailed to work-site supervisors identified by local coordinators.

The PAC discussed in detail the current TEA guidelines for co-op programs. Many good suggestions were made regarding the relevancy of and compliance to the guidelines. After the data are collected and results defined, the committee will have the opportunity for input as to suggestions for revising the guidelines.

The PAC discussed each question in the student questionnaire, providing input as to relevancy and wording of questions. The project coordinator will revise the questionnaire using PAC suggestions. Adjournment time arrived before the coordinators' and supervisors' questionnaires could be reviewed. Each member was encouraged to submit a copy of these questionnaires with his/her comments and suggestions.

Many PAC members brought information concerning their local co-op programs, which will be reviewed by the project coordinator.

Travel reimbursement forms were explained. Participants will return completed forms with appropriate receipts as soon as possible.

The meeting was adjourned at 12:30 p.m.

Appendix E

Community Colleges in Texas

Texas postsecondary institutions that participated in the research project.

BEST COPY AVAILABLE

1. FRANK PHILLIPS COLLEGE
P.O. Box 5118
Borger, TX 79007

2. TSTI, AMARILLO
P.O. Box 11035
Amarillo, TX 79111

3. AMARILLO COLLEGE
P.O. Box 447
Amarillo, TX 79178

4. CLARENDON JUNIOR COLLEGE
P.O. Box 968
Clarendon, TX 79226

5. SOUTH PLAINS COLLEGE, LEVELLAND
1400 South College
Levelland, TX 79336

6. SOUTH PLAINS COLLEGE, LUBBOCK
1302 Main Street
Lubbock, TX 79401

7. EL PASO COMMUNITY COLLEGE,
VALLE VERDE CAMPUS
P.O. Box 20500
El Paso, TX 79998

8. EL PASO COMMUNITY COLLEGE,
TRANSMOUNTAIN CAMPUS
P.O. Box 20500
El Paso, TX 79998

9. EL PASO COMMUNITY COLLEGE,
RIO GRANDE CAMPUS
P.O. Box 20500
El Paso, TX 79998

10. ODESSA COLLEGE
201 West University
Odessa, TX 79762

11. MIDLAND COLLEGE
3600 North Garfield
Midland, TX 79701

12. SOUTHWEST COLLEGIATE INSTITUTE
FOR THE DEAF
Avenue C
Big Springs, TX 79720

13. HOWARD COLLEGE AT BIG SPRING
1001 Birdwell Lane
Big Spring, TX 79720

14. WESTERN TEXAS COLLEGE
Snyder, TX 79549

15. TSTI, SWEETWATER
Route 3
Sweetwater, TX 79556

16. VERNON REGIONAL JUNIOR COLLEGE
4400 College Drive
Vernon, TX 76384

17. CISCO JUNIOR COLLEGE
Route 3, Box 3
Cisco, TX 76437

18. RANGER JUNIOR COLLEGE
College Circle
Ranger, TX 76470

19. WEATHERFORD COLLEGE
308 East Park Avenue
Weatherford, TX 76086

20. TARRANT COUNTY JUNIOR COLLEGE
NORTHWEST CAMPUS
4801 Marine Creek Parkway
Fort Worth, TX 76179

21. TARRANT COUNTY JUNIOR COLLEGE
NORTHEAST CAMPUS
828 Harwood Road
Hurst, TX 76054

22. TARRANT COUNTY JUNIOR COLLEGE
SOUTH CAMPUS
5301 Campus Drive
Fort Worth, TX 76119

23. NORTH LAKE COLLEGE
5001 North MacArthur
Irving, TX 75038

24. BROOKHAVEN COLLEGE
3939 Valley View Lane
Farmers Branch, TX 75234

25. EL CENTRO COLLEGE
Main and Lamar St.
Dallas, TX 75202

26. RICHLAND COLLEGE
12800 Abrams Road
Dallas, TX 75243

27. EASTFIELD COLLEGE
3737 Motley Drive
Mesquite, TX 75150

28. CEDAR VALLEY COLLEGE
3030 N. Dallas Avenue
Lancaster, TX 75134

29. MOUNTAIN VIEW COLLEGE
4849 West Illinois Avenue
Dallas, TX 75211

30. COOKE COUNTY COLLEGE
P.O. Box 815
Gainesville, TX 76240

31. GRAYSON COUNTY COLLEGE
6101 Grayson
Denison, TX 75020

32. PARIS JUNIOR COLLEGE
2400 Clarksville Street
Paris, TX 75460

33. NORTHEAST TEXAS COMMUNITY COLLEGE
P.O. Box 1307
Mt. Pleasant, TX 75455

34. TEXARKANA COMMUNITY COLLEGE
2500 North Robison Road
Texarkana, TX 75501

35. KILGORE COLLEGE
1100 Broadway
Kilgore, TX 75662

36. TYLER JUNIOR COLLEGE
P.O. Box 9020
Tyler, TX 75711

37. CENTRAL TEXAS COLLEGE
U.S. Highway 190 West
Killeen, TX 76542

38. TEMPLE JUNIOR COLLEGE
2600 South First Street
Temple, TX 76501

39. TSTI, WACO
Waco, TX 76705

40. MCLENNAN COMMUNITY COLLEGE
1400 College Drive
Waco, TX 76708

41. HILL JUNIOR COLLEGE
P.O. Box 619
Hillsboro, TX 76645

42. NAVARRO COLLEGE
P.O. Box 1170
Corsicana, TX 75110

43. HENDERSON COUNTY JUNIOR COLLEGE
Cardinal Drive
Athens, TX 75751

44. HENDERSON COUNTY JUNIOR COLLEGE
ANDERSON CENTER
P.O. Box 1306
Palestine, TX 75801

45. ANGELINA COLLEGE
P.O. Box 1768
Lufkin, TX 75901

46. PANOLA JUNIOR COLLEGE
Carthage, TX 75633

47. AUSTIN COMMUNITY COLLEGE
P.O. Box 2285
Austin, TX 78768

48. BLINN COLLEGE
902 College Avenue
Brenham, TX 77833

49. SOUTHWEST TEXAS JUNIOR COLLEGE
Uvalde, TX 78801

50. SAN ANTONIO COLLEGE
1300 San Pedro
San Antonio, TX 78284

51. ST. PHILLIPS COLLEGE
211 Nevada Street
San Antonio, TX 78203

52. WHARTON COUNTY JUNIOR COLLEGE
911 Boling Highway
Wharton, TX 77488

53. LAREDO JUNIOR COLLEGE
West End Washington Street
Laredo, TX 78040

54. TEXAS SOUTHMOST COLLEGE
83 Fort Brown
Brownsville, TX 78520

55. TSTI, HARLINGEN
P.O. Box 2628
Harlingen, TX 78550

56. DEL MAR COLLEGE
Baldwin at Ayers
Corpus Christi, TX 78404

57. BEE COUNTY COLLEGE
3800 Charco Road
Beeville, TX 78102

58. THE VICTORIA COLLEGE
2200 E. Red River
Victoria, TX 77901

59. BRAZOSPORT COLLEGE
500 College Drive
Lake Jackson, TX 77566

60. ALVIN COMMUNITY COLLEGE
3110 Mustang Road
Alvin, TX 77511

61. COLLEGE OF THE MAINLAND
8001 Palmer Highway
Texas City, TX 77591

62. GALVESTON COLLEGE
4015 Avenue Q
Galveston, TX 77550

63. NORTH HARRIS COUNTY COLLEGE
2700 W.W. Thorne Dr.
Houston, TX 77076

64. SAN JACINTO COLLEGE
NORTH CAMPUS
5800 Uvalde
Houston, TX 77049

65. SAN JACINTO COLLEGE
CENTRAL CAMPUS
8060 Spencer Highway
Pasadena, TX 77505

66. SAN JACINTO COLLEGE
SOUTH CAMPUS
13735 Beamer Road
Houston, TX 77089

67. HOUSTON COMMUNITY COLLEGE SYSTEM
P.O. Box 7849
Houston, TX 77270

68. LEE COLLEGE
P.O. Box 818
Baytown, TX 77520

69. LAMAR UNIVERSITY
P.O. Box 10043
Beaumont, TX 77710

70. LAMAR UNIVERSITY
AT PORT ARTHUR
P.O. Box 310
Port Arthur, TX 77640

71. LAMAR UNIVERSITY
AT ORANGE
410 Front Street
Orange, TX 77630

Appendix F

STUDENT EVALUATION OF CO-OP STUDENT SURVEY

Thank you for participating in this pilot study for the cooperative education research project. Please express your reaction by completing the following evaluation of the questionnaire and the process used for its administration.

	Poor	Fair	Average	Good	Excellent
1. The instructor gave clear and explicit directions.	1	2	3	4	5
2. Procedures were efficient and were accomplished in a reasonable amount of time and effort.	1	2	3	4	5
3. The instructions to the student on the questionnaire were clear and explicit.	1	2	3	4	5
4. The questions were easy to understand.	1	2	3	4	5
5. The answers were easy to identify.	1	2	3	4	5

COORDINATOR'S EVALUATION OF THE CO-OP STUDENT SURVEY

After administering the co-op questionnaire to students, please complete the following evaluation of the process.

	Poor	Fair	Average	Good	Excellent
1. Instructions to the teacher were clear and explicit.	1	2	3	4	5
2. Procedures were efficient and were accomplished in a reasonable amount of time and effort.	1	2	3	4	5
3. Student instructions were clear and explicit.	1	2	3	4	5
4. Students readily understood the questions.	1	2	3	4	5
5. Students easily identified response choices.	1	2	3	4	5
6. Students were able to complete the questions without difficulty.	1	2	3	4	5
7. Student reaction to the questionnaire was:	1	2	3	4	5

Please complete the following information:

The questionnaire:

took approximately _____ minutes for students to complete.

was administered on _____(date).

was administered to _____(number) students.

was administered to students in (management, industrial, technical, home economics, business/office, or combined) program area(s).

This evaluation was completed by:

Name _____ Telephone _____

Title _____ School _____

THANK YOU FOR PARTICIPATING IN THIS PILOT STUDY
FOR THE CO-OP RESEARCH PROJECT.

EAST TEXAS STATE UNIVERSITY

Appendix G

November 4, 1985

Dr. Dan Bristow
Vocational Research Division
Texas Education Agency
1701 North Congress
Austin, TX 78701

Dear Dr. Bristow:

Work on the research project to evaluate postsecondary cooperative education programs is progressing well. We have been working closely with a project advisory committee (PAC) composed of educators and business people and have developed a series of questionnaires for co-op students, coordinators, and work-site supervisors.

These questionnaires, plus directions for their completion, are enclosed for your review and approval. As per your conversation with Dr. Barnes, a duplicate package has been included for Dr. Nellie Thorogood at the Coordinating Board. She is knowledgeable of the project and has received copies of the objectives and PAC meeting minutes.

The time schedule for this survey is critical! The original schedule called for the survey to be conducted during January. However, the PAC felt the beginning of a semester was not a good time because new co-op students would not have sufficient information to complete the questionnaire. Therefore, the survey date was moved ahead one month--December 1 - 20. This also accelerated the field review and approval schedule. Your immediate attention and prompt response would be very much appreciated. **To meet the December 1 date, we must get the final draft to the print shop by November 18.** Please send your input to us as soon as possible.

The enclosed copies are in their field review draft format. Input from field review to date indicates only minor revision will be required. The final draft will be printed in a four-page, double column format with attractive headings.

Complete directions will be included for the coordinators and supervisors, plus postage-paid return envelopes.

I look forward to hearing from you soon. If you have any questions, please call me at (214) 886-5124.

Sincerely yours,

Donna Hines
Curriculum Specialist
Postsecondary Office Occupations

Enclosures:

pc: Dr. Bill Barnes

COOPERATIVE EDUCATION

Work-site Supervisor Questionnaire

Indicate the most accurate response by circling the appropriate answer. Most responses will reflect activities in your local program; however, there are some general opinion questions. This information is confidential and will be used for research purposes only.

1. How long have you worked with cooperative education programs?

Range 0-14, Mean 2.9 years

2. Approximately how many workers are employed at your company/agency?

full-time		part-time	
30.0 a.	1-10	36.6 a.	1-10
11.4 b.	11-20	4.9 b.	11-20
17.1 c.	21-50	5.7 c.	21-50
5.7 d.	51-100	2.4 d.	51-100
18.7 e.	101 or more	8.1 e.	101 or more
17.1	Missing Data	42.3	Missing Data

3. How many college cooperative education work stations are located at your company/agency?

Range 0-40, Mean 3.2

4. List the primary purpose (product or service) of your company/agency.

_____

.8	a.	Agri Business
.8	b.	Fine Arts
6.5	c.	Health
6.5	d.	Hospitality and Recreation
10.6	e.	Manufacturing
.8	f.	Marine Science
18.7	g.	Marketing and Distribution
0	h.	Personal Services
17.1	i.	Public Services
8.9	j.	Transportation
9.8	k.	Business and Office
6.5	l.	Communications and Media
8.1	m.	Construction
.8	n.	Consumer and Homemaking
.8	o.	Environment
3.3		Missing Data

5. What percentage of co-op students with whom you work are enrolled in the cooperative education seminar class at the college?

38.3	a.	90-100%
.8	b.	80-89%
0	c.	70-79%
.8	d.	60-69%
2.4	e.	50-59%
27.6	f.	49% or less
26.0	g.	don't know
4.1		Missing Data

6. For the current semester/quarter, what percentage of your co-op students have training plans (performance objectives) on file with you?

44.0	a.	90-100%
1.6	b.	80-89%
0	c.	70-79%
0	d.	60-69%
1.6	e.	50-59%
27.6	f.	49% or less
17.1	g.	don't know
8.1		Missing Data

7. How well do training plans (performance objectives) coordinate classroom instruction with skills to be learned at the student's training site?

26.0	a.	very good
41.5	b.	good
14.6	c.	fair
1.6	d.	poor
.8	e.	very poor
11.4	f.	don't know
4.1		Missing Data

8. On the average, when are training plans (performance objectives) prepared?

26.8	a.	prior to start of the semester
28.5	b.	first week of the semester
13.0	c.	the second week
0	d.	the third week
.8	e.	the fourth week
1.6	f.	the fifth week or later
26.0	g.	don't know
3.3		Missing Data

9. On the average, who has input into determining the goals, objectives, and activities listed on the student's training plan (performance objectives). (Mark all that apply or of which you are aware.)

a. college coordinator
b. work-site supervisor
c. vocational instructor(s)
d. student
e. don't know

10.6	ABCD	1.6	BDE
17.9	ABD	7.3	BD
4.1	AB	8.1	B
2.4	ACD	1.6	CD
1.6	AC	3.3	C
6.5	AD	6.5	D
3.3	A	12.2	E
8.1	BCD	3.3	Missing Data
1.6	BC		

10. On the average, how many hours per week does each co-op student work at the training station(s) you supervise?

9.8	a.	5 hours or less
7.3	b.	6-9 hours
4.9	c.	10-14 hours
7.3	d.	15-19 hours
17.9	e.	20-24 hours
4.9	f.	25-29 hours
43.8	g.	30 hours or more
4.1		Missing Data

11. How often do you provide evaluation of training plan objectives to the student/employee?

8.1	a.	always	7.3	d.	seldom
35.8	b.	often	4.9	e.	never
39.8	c.	occasionally	4.1		Missing Data

12. To what degree is your evaluation of student's work considered in determining the student's final grade for the co-op course?

4.1	a.	100% of final grade
11.4	b.	75%-99%
16.3	c.	50%-74%
5.7	d.	25%-49%
7.3	e.	0-24%
51.9	f.	don't know
3.3		Missing Data

13. On the average, how many semesters/quarters does the same student work with your company/agency for co-op credit?

25.1	a.	1	22.0	d.	4
18.7	b.	2	23.6	e.	don't know
6.5	c.	3	4.1		Missing Data

14. On the average, how many times during the semester/quarter does the coordinator visit the work site of students under your supervision?

9.8	a.	4 or more
8.1	b.	3
28.5	c.	2
33.2	d.	1
16.3	e.	never (If never, skip to # 16.)
4.1		Missing Data

15. When the coordinator visits the work-site, how often does he/she have a conference with you to discuss the student's activities and/or progress?

48.1	a.	always
8.9	b.	often
14.6	c.	occasionally
7.3	d.	seldom
1.6	e.	never
.8	f.	I'm usually not available
18.7		Missing Data

16. What percentage of co-op students are employed by your company/agency as regular workers after their co-op experience?

40.6	a.	76-100%	22.8	d.	1-25%
10.6	b.	51-75%	8.9	e.	none
6.5	c.	26-50%	10.6		Missing Data

17. In your opinion, rate the effectiveness of cooperative education programs in helping students reach their vocational goals.

22.0	a.	extremely effective
42.3	b.	highly effective
26.0	c.	somewhat effective
1.6	d.	seldom effective
0	e.	never effective
5.7	f.	no opinion
2.4		Missing Data

18. In your opinion, the number of cooperative education programs at the local college should be:

49.5	a.	increased
30.1	b.	continued at same level
0	c.	decreased
0	d.	discontinued altogether
17.1	e.	no opinion
3.3		Missing Data

19. In your opinion, rate the quality of the content of all seminar and vocational courses related to cooperative education programs.

21.1	a.	very good	0	e.	very poor
39.8	b.	good	22.8	f.	no opinion
10.6	c.	fair	4.1		Missing Data
1.6	d.	poor			

20. In your opinion, rate the quality of coordination/instruction of cooperative education programs.

22.8 a. very good
41.3 b. good
11.4 c. fair
3.3 d. poor
0 e. very poor
17.9 f. no opinion
3.3 Missing Data

21. To what degree does the college encourage placement of co-op students in non-traditional jobs, i.e. females in welding programs, males in secretarial programs?

1.6 a. always
15.4 b. often
7.3 c. occasionally
6.5 d. seldom
0 e. never
65.9 f. don't know
3.3 Missing Data

22. To what degree does your company/agency encourage employment of co-op students in non-traditional jobs?

12.2 a. always
21.1 b. often
18.7 c. occasionally
13.0 d. seldom
5.7 e. never
22.0 f. don't know
7.3 Missing Data

23. Are any special need students employed at your company/agency? (If yes, please mark all that apply.)

a. physically handicapped
b. mentally handicapped
c. educationally disadvantaged
d. limited English proficient
e. no

2.4 ABCD
.8 ABC
3.3 ACD
1.6 AC
4.1 AD
4.1 A
.8 BCD
3.3 CD
2.4 C
3.3 D
65.8 E
8.1 Missing Data

24. To what degree does the college make provisions for special need co-op students?

8.9 a. always
9.8 b. often
4.9 c. occasionally
0 d. seldom
2.4 e. never
67.5 f. don't know
6.5 Missing Data

25. To what degree does your company/agency make provisions for special need co-op students?

21.1 a. always
10.6 b. often
23.6 c. occasionally
6.5 d. seldom
18.7 e. never
19.5 Missing Data

Comments: _____

_____

_____

_____

_____

THANK YOU FOR TAKING YOUR VALUABLE TIME TO COMPLETE THIS QUESTIONNAIRE.

YOUR COOPERATION AND PARTICIPATION ARE GREATLY APPRECIATED.

Return by: December 20, 1985

Return to: Donna Hines

Occupational Curriculum Laboratory
ETSU Station
Commerce, TX 75428
(214) 886-5124

MEMO

OCCUPATIONAL CURRICULUM LABORATORY
EAST TEXAS STATE UNIVERSITY • Mayo Hall
Commerce, TX 75428 • 214/886-5623

Appendix H

To:

From: Donna Hines, Postsecondary Curriculum Specialist

Date: November 27, 1985

Subject: Cooperative Education Research Project

You have been identified by the cooperative education coordinator at your local college as a co-op work-site supervisor. Your input is solicited for a research project to evaluate the effectiveness of cooperative education in Texas postsecondary institutions.

We have been working closely with a project advisory committee and have developed a series of questionnaires for co-op students, coordinators, and work-site supervisors to accomplish this objective. Educators and business people representing approximately 50 junior/community colleges are participating in this study. Data from this project will be compiled into a final report and submitted to the Texas Education Agency and the Coordinating Board, Texas College and University System. This report will be used to plan and improve cooperative education programs on a state-wide basis.

Many changes have occurred in the Texas educational system, and others are imminent. In particular, vocational education has been under fire. Educators and business people alike need to be aware of and ready for the changes that lie ahead. I encourage you to support this cooperative education research project and other efforts to improve postsecondary vocational education programs.

Your assistance is needed for this project. Please complete the enclosed questionnaire and return it in the postage-paid envelope by December 20. Please give this your thoughtful consideration and return it promptly. Your participation and cooperation are greatly appreciated. If you have any questions, please call (214) 886-5124.

COOPERATIVE EDUCATION

Coordinator Questionnaire

Indicate the most accurate response by circling the appropriate answer. Most responses will reflect activities in your local program; however, there are some general opinion questions. This information is confidential and will be used for research purposes only.

1. How long have you supervised cooperative education programs?

Range 1-21, Mean 6-2 years

2. What is the approximate enrolment at your college?

7.4 a. 2,000 or less
36.1 b. 2,001-5,000
11.1 c. 5,001-8,000
8.3 d. 8,001-10,000
30.6 e. 10,001 or more
6.5 Missing data

3. Is your college on the semester or quarter system?

88.0 a. semester
12.0 b. quarter

4. What is the total number of co-op coordinators at your college?

	full-time? (co-op only)		part-time? (co-op plus other)
33.3	a. 0-3	17.6	a. 0-3
8.3	b. 4-6	13.0	b. 4-6
7.4	c. 7-9	2.8	c. 7-9
1.9	d. 10-12	1.9	d. 10-12
9.3	e. 13 or more	8.3	e. 13 or more
16.7	f. don't know	13.0	f. don't know
23.1	Missing Data	43.4	Missing Data

5. List all the vocational/technical fields that offer cooperative education programs at your college.

Range 0-58, Mean 8.8

_____

_____

_____

6. List the vocational/technical field(s) for which you serve as cooperative education coordinator.

_____

_____

_____

7. On the average, students

64.8 a. are employed before entering your co-op program
8.3 b. find their own co-op training station
25.0 c. are placed in a work station by the coordinator
1.9 Missing Data

8. On the average, what percent of students are placed in work stations by the 12th class day?

69.3 a. 90-100%
13.9 b. 80-89%
5.6 c. 70-79%
1.9 d. 60-69%
7.4 e. 59% or less
1.9 Missing Data

9. On the average, how many students drop your cooperative program before completing the required number of semesters/quarters?

59.2 a. 0-9%
19.4 b. 10-19%
10.2 c. 20-29%
5.6 d. 30-39%
1.9 e. 40-49%
.9 f. 50% or more
2.8 Missing Data

10. Does your co-op program offer a seminar class for co-op students?

84.2 a. yes
13.9 b. no (If no, skip to #14)
1.9 Missing Data

11. How often are co-op students required to attend your seminar class?

64.8 a. every week
3.7 b. every two weeks
2.8 c. every three weeks
7.4 d. once a month
7.4 e. when meetings are scheduled by coordinator
0 f. never
13.9 Skip

12. What percentage of co-op students enroll in your seminar class?

76.7 a. 90-100%
5.6 b. 80-89%
0 c. 70-79%
0 d. 60-69%
0 e. 50-59%
1.9 f. 49% or less
1.9 Missing Data
13.9 Skip

13. What is the average attendance rate for your seminar class?

47.2 a. 90-100%
32.4 b. 80-89%
4.6 c. 70-79%
0 d. 60-69%
0 e. 50-59%
1.9 f. 49% or less
13.9 Skip

14. What is the maximum number of co-op credit hours that could be earned in a semester? . . . . . qaurter?

7.4	a.	1	0	a.	1
5.6	b.	2	0	b.	2
34.3	c.	3	.9	c.	3
37.0	d.	4	0	d.	4
0	e.	5	0	e.	5
3.7	f.	6	11.1	f.	6
12.0		Missing Data	88.0		Missing Data

15. What is the maximum number of co-op credit hours that could apply to a student's two-year degree?

13.0 a. 3-4
46.3 b. 5-8
3.7 c. 9-11
14.8 d. 12-14
18.5 e. 15 or more
3.7 Missing Data

16. For the current semester/quarter, what percentage of your co-op students have a training plan (performance objectives) on file at the college?

86.0 a. 90-100%
2.8 b. 80-89%
1.9 c. 70-79%
0 d. 60-69%
9.3 e. 59% or less

17. When are the majority of the training plans (performance objectives) prepared?

10.2 a. prior to start of the semester
30.4 b. first week of the semester
28.7 c. the second week
16.7 d. the third week
10.2 e. the fourth week
1.9 f. the fifth week or later
1.9 Missing Data

18. On the average, who has input into determining the goals, objectives, and activities listed on the student's training plan. (Mark all that apply.)

a. college co-op coordinator
b. work-site supervisor
c. vocational instructor(s)
d. student

19.4	ABCD	4.6	A
1.9	ABC	4.6	BCD
42.6	ABD	.9	BC
6.5	AB	2.8	BD
.9	ACD	4.6	B
1.9	AC	.9	CD
5.6	AD	2.8	C

19. How well do training plans (performance objectives) coordinate classroom instruction with skills to be learned at the students' training sites?

41.7 a. very good
45.2 b. good
9.3 c. fair
1.9 d. poor
0 e. very poor
1.9 Missing Data

20. On the average, how many times during the semester/quarter do you visit the work station of each student?

5.6 a. 4 or more
10.2 b. 3
64.8 c. 2
19.4 d. 1
0 e. supervisor unavailable
0 f. never (If never, skip to #23)

21. After a visit to the training site, how often do you have a conference with the student to discuss your observations?

38.9 a. always
38.0 b. often
17.6 c. occasionally
3.7 d. seldom
.9 e. never
.9 Missing Data

22. When you visit the training site, how often do you have a conference with the work-site supervisor?

72.2 a. always
20.4 b. often
4.6 c. occasionally
1.9 d. seldom
0 e. never
.9 Missing Data

23. How often do work-site supervisors provide evaluation of training plan objectives to students?

45.3 a. always
30.6 b. often
12.0 c. occasionally
4.6 d. seldom
1.9 e. never
5.6 f. don't know

24. On the average, how many semesters/quarters do your students enroll in co-op programs?

22.2 a. 1
36.1 b. 2
8.3 c. 3
27.8 d. 4
2.8 e. 5 or more
2.8 Missing Data

25. How many co-op students are currently enrolled in the cooperative education program you supervise?

33.3 a. 0-10
20.4 b. 11-20
20.4 c. 21-30
17.6 d. 31-40
8.3 e. 41 or more

26. How many training sites do you currently coordinate?

41.6 a. 0-10
27.8 b. 11-20
17.6 c. 21-30
9.3 d. 31-40
3.7 e. 41 or more

27. What percentage of your training sites are located within a 30-minute drive?

24.1 a. 100%
37.0 b. 80-99%
14.8 c. 60-79%
6.5 d. 40-59%
16.7 e. 39% or less
.9 Missing Data

28. How many different employers currently employ co-op students in the program you supervise?

38.0 a. 0-10
32.4 b. 11-20
14.8 c. 21-30
9.3 d. 31-40
4.6 e. 41 or more
.9 Missing Data

29. What percentage of your contracted work time is devoted to cooperative education programs?

10.2 a. 100%
8.3 b. 80-99%
12.0 c. 60-79%
18.5 d. 40-59%
50.1 e. 39% or less
.9 Missing Data

30. Does your co-op assignment create a teaching overload for you this semester/quarter?

27.8 a. yes
70.3 b. no
1.9 Missing Data

31. How many months per year are you contracted to work in the cooperative education program?

15.7 a. one semester/quarter or less
7.4 b. 5-8 months
42.7 c. 9 months
21.3 d. 10 months
.9 e. 11 months
12.0 f. 12 months

32. What is your usual beginning date of employment for co-op programs?

.9 a. July 1
17.6 b. August 1
58.4 c. September 1
0 d. October 1
19.4 e. other _____
3.7 Missing Data

33. On the average, what is the total hours per week that you devote to your cooperative education program?

46.2 a. 1-10 hours
32.4 b. 11-20 hours
9.3 c. 21-30 hours
10.2 d. 31-40 hours
1.9 e. 41 or more hours

34. In your opinion, rate the effectiveness of cooperative education programs in helping students reach their vocational goals.

39.8 a. extremely effective
40.7 b. highly effective
16.7 c. somewhat effective
1.9 d. seldom effective
.9 e. never effective

35. In your opinion, the number of cooperative education programs at your college should be:

38.0 a. increased
50.9 b. continued at present level
3.7 c. decreased
2.8 d. discontinued altogether
4.6 Missing Data

36. In your opinion, rate the quality of the content of all seminar and vocational courses related to cooperative education programs at your college.

45.4 a. very good
37.0 b. good
8.3 c. fair
1.9 d. poor
0 e. very poor
7.4 Missing Data

37. In your opinion, rate the quality of coordination/instruction of cooperative education programs at your college.

46.3 a. very good
40.7 b. good
6.5 c. fair
.9 d. poor
1.9 e. very poor
3.7 Missing Data

38. To what extent does your college encourage placement of co-op students in non-traditional jobs, i.e. females in welding programs, males in secretarial programs?

12.0 a. always
30.6 b. often
18.5 c. occasionally
4.6 d. seldom
2.8 e. never
30.6 f. don't know
.9 Missing Data

39. To what extent do employers encourage employment of co-op students in non-traditional jobs?

3.7 a. always
22.2 b. often
25.9 c. occasionally
11.1 d. seldom
3.7 e. never
31.5 f. don't know
1.9 Missing Data

40. Are special needs students currently enrolled in your co-op program? If yes, please indicate all categories that apply.

a. physically handicapped
b. mentally handicapped
c. educationally disadvantaged
d. limited English proficient
e. no

2.8 ABCD	.9 BC
5.6 ACD	10.2 CD
5.6 AC	7.4 C
7.4 AD	6.5 D
8.3 A	39.8 E
.9 BCD	4.6 Missing Data

41. To what degree does your college make provisions for special need co-op students?

37.1 a. always
28.7 b. often
12.0 c. occasionally
.9 d. seldom
1.9 e. never
18.5 f. don't know
.9 Missing Data

42. To what degree do employers make provisions for special need co-op students?

13.9 a. always
23.1 b. often
23.1 c. occasionally
5.6 d. seldom
1.9 e. never
30.5 f. don't know
1.9 Missing Data

THANK YOU FOR TAKING YOUR VALUABLE TIME TO COMPLETE THIS QUESTIONNAIRE.

YOUR COOPERATION AND PARTICIPATION ARE GREATLY APPRECIATED.

Return by: December 20, 1985

Return to: Donna Hines
Occupational Curriculum Laboratory
ETSU Station
Commerce, TX 75428
(214) 886-5124

OCCUPATIONAL CURRICULUM LABORATORY
EAST TEXAS STATE UNIVERSITY • Mayo Hall
Commerce, TX 75428 • 214/886-5623

MEMO

Appendix K

To:

From: Donna Hines, Postsecondary Curriculum Specialist

Date: November 27, 1985

Subject: Cooperative Education Research Project

The Occupational Curriculum Laboratory is conducting a TEA-sponsored research project to evaluate the effectiveness of cooperative education programs. We have been working closely with a project advisory committee and have developed a series of questionnaires for co-op students, coordinators, and work-site supervisors to accomplish this objective. Educators and business people representing approximately 50 Texas junior/community colleges are participating in this project. Data from this project will be compiled into a final report and submitted to Texas Education Agency and the Coordinating Board, Texas College and University System. This report will be used to plan and improve cooperative education programs on a state-wide basis.

Your assistance is needed in three ways:

1. Complete the enclosed coordinator's questionnaire (yellow).

2. Administer the student questionnaire (blue) to the identified students in your co-op seminar class.

3. Return the completed questionnaires in the postage-paid, self-addressed envelope by December 20, 1985.

Complete directions are enclosed with the questionnaires.
If you have any questions, please call (214) 886-5124.

Many changes are currently underway in the Texas educational system, and others are imminent. The guidelines and demand for accountability the legislature has recently imposed on the public school system may soon be required of post-secondary institutions. We hope this project will provide verified statistical data and positive recommendations when the Governor's "Blue Ribbon Committee" investigates post-secondary vocational programs. As postsecondary educators, we need to be aware of and ready for the changes that lie ahead. I encourage you to support this cooperative education research project and other efforts to improve postsecondary vocational education programs.

Appendix L

DIRECTIONS FOR ADMINISTERING CO-OP STUDENT QUESTIONNAIRE

IDENTIFYING STUDENTS

Administer the student questionnaire (blue) to the students identified with a red check mark on the enclosed list. These students have been randomly selected from your roll sheet. If an identified student is absent or has dropped, make the appropriate notation beside his or her name and return the blank questionnaire. Please make every effort to administer the questionnaire to the identified students.

ADMINISTERING THE QUESTIONNAIRE

Identified students can complete the questionnaire during their regularly scheduled seminar class or any other time that is mutually convenient for you and the students. A brief explanation as to the purpose of the survey should be given to the students before they begin. Impress upon them the importance of the survey and encourage them to answer all questions honestly and to the best of their knowledge. Instruct students to circle clearly the most appropriate response in the multiple-choice questions. Little or no explanation about the questions should be required but is permissible if necessary to clarify terms. The pilot study indicated that average students required about 10-15 minutes to complete the questionnaire. After students have finished, collect the questionnaires and return them along with the identified student list (with any absent/dropped notations) in the enclosed postage-paid envelope.

FOLLOW-UP TELEPHONE INTERVIEW

Student responses are anonymous unless students wish to volunteer for the follow-up telephone interview to be conducted in January. If they wish to participate in the telephone interview, they should fill in their name, address, and telephone number as the last item on the questionnaire. All students who volunteer may not be contacted, however, since only a selected percentage will be called to verify the results of the written questionnaires.

THANK YOU

Please express our gratitude to the students for completing the questionnaire. Their cooperation and participation, and yours, are greatly appreciated.

COOPERATIVE EDUCATION

Student Questionnaire

Indicate the most accurate response by circling the appropriate answer. Most responses will reflect activities in your local program; however, there are some general opinion questions. This information is confidential and will be used for research purposes only.

1. What is your age?

13.8 a. less than 20
30.8 b. 20-24
19.7 c. 25-30
17.3 d. 31-35
18.4 e. over 35

2. What is your sex?

50.0 a. female
50.0 b. male

3. What is your educational objective?

9.2 a. Certificate program (1 year)
59.7 b. Associate degree (2 years)
26.5 c. Bachelor's degree (4 years)
3.0 d. Master's degree (6 years)
.5 e. Doctoral degree (8 years)
1.1 Missing Data

4. How much education do you presently have?

1.4 a. No high school diploma
14.9 b. GED or equivalent
69.8 c. High school diploma
11.1 d. Associate degree (2 years)
1.4 e. Bachelor's degree (4 years)
.3 f. Master's degree or above
1.1 Missing Data

5. What is your college grade point average? (On a 4.0 scale, A=4.0, B=3.0, C=2.0, D=1.0)

0 a. Less than 1.0
2.7 b. 1.0 - 1.99
20.8 c. 2.0 - 2.99
49.8 d. 3.0 - 3.99
8.6 e. 4.0
16.5 f. don't know
1.6 Missing Data

6. What is your current college classification?

43.5 a. freshman (1 - 30 credit hours)
54.1 b. sophomore (31 - 60 credit hours)
2.4 missing data

7. Is your college on the semester or quarter system?

91.1 a. semester
7.8 b. quarter
1.1 Missing Data

8. What is your vocational major? (i.e., mid-management, office, etc.)

.5 a. Agriculture
6.5 b. Distribution & Marketing
6.5 c. Occupational Home Economics
13.0 d. Office Occupations
3.2 e. Industrial Education
0 f. Health
10.5 g. Technical Education
5.4 h. Community Service
47.1 i. Management
1.6 j. Other
5.7 Missing Data

9. How many credit hours have you completed in your related field toward your vocational major?

17.0 a. 0-6
11.6 b. 7-12
12.7 c. 13-18
10.0 d. 19-24
45.7 e. 25 or more
3.0 Missing Data

10. How many college credit hours are you receiving this semester for your co-op work experience (internship)?

5.1 a. 1
10.5 b. 2
30.5 c. 3
30.9 d. 4
1.1 e. 5
19.5 f. 6 or more
2.4 Missing Data

11. How many hours per week are you required to work to earn your co-op credit?

3.0 a. 1-5
1.4 b. 6-9
5.9 c. 10-14
16.2 d. 15-19
47.5 e. 20-24
.8 f. 25-29
2.2 g. 30-34
1.9 h. 35-39
17.3 i. 40 or more
3.8 Missing Data

12. On the average, how many hours per week are you actually working at your co-op work station?

2.2 a. 1-5
0 b. 6-9
3.5 c. 10-14
8.4 d. 15-19
13.2 e. 20-24
4.3 f. 25-29
7.0 g. 30-34
5.4 h. 35-39
54.6 i. 40 or more
1.4 Missing Data

13. Are you paid for the work you do at your co-op training station or is it an unpaid internship?

83.6 a. paid
15.9 b. unpaid
.5 Missing Data

14. How many semesters/quarters have you participated in cooperative education programs while enrolled at your current college?

62.4 a. 1
13.2 b. 2
13.5 c. 3
6.8 d. 4
2.7 e. 5 or more.
1.4 Missing Data

15. How many weeks have you been employed at your current work station?

Range=0-936, Mean=99.8 weeks

16. To what degree is your current cooperative employment related to your educational goal?

32.7 a. very highly related
35.8 b. highly related
25.9 c. somewhat related
4.3 d. seldom related
.5 e. never related
.8 Missing Data

17. Are you pursuing an educational goal to change your employment?

55.4 a. yes
44.3 b. no
.3 Missing Data

18. How many months of full-time work experience of any kind have you had in addition to your cooperative employment?

27.3 a. 6 months or less
11.6 b. 7-12 months
10.8 c. 13-24 months
5.4 d. 25-36 months
44.1 e. 37 months or more
.8 Missing Data

19. How many months of part-time work experience of any kind have you had in addition to your cooperative employment?

48.1 a. 6 months or less
13.0 b. 7-12 months
10.8 c. 13-24 months
6.5 d. 25-36 months
14.6 e. 37 months or more
7.0 Missing Data

20. Estimate what percentage of your work experience listed in 18 and 19 above was related to your current educational goal.

12.7 a. none
18.9 b. 1-25%
17.3 c. 25-50%
17.6 d. 51-75%
26.5 e. 76-100%
5.4 f. don't know
1.6 Missing Data

21. Are you enrolled in a cooperative work experience seminar class at the college?

75.7 a. yes
21.6 b. no (If no, skip to # 25.)
2.7 Missing Data

22. How often are you required to attend the seminar?

57.0 a. every week
2.2 b. every two weeks
1.1 c. every three weeks
8.1 d. once a month
7.6 e. when meetings are scheduled by coordinator
0 f. never
2.4 Missing Data
21.6 Skip

23. How often do you attend the seminar during a semester/quarter?

54.3 a. every meeting
19.7 b. occasionally absent
1.4 c. absent half the time
.8 d. absent 3/4 of the time
0 e. never attend
2.2 Missing Data
21.6 Skip

24. How valuable do you consider the seminar class?

46.3 a. very good
21.6 b. good
6.5 c. fair
.8 d. poor
.5 e. very poor
2.7 Missing Data
21.6 Skip

25. Do you have a training plan (performance objectives) that outlines your cooperative work experience?

84.3 a. yes
11.6 b. no (If no, skip to # 29.)
4.1 Missing Data

26. How well does your training plan (performance objectives) coordinate your classroom instruction with those skills you must learn on the job?

39.8 a. very good
36.2 b. good
9.2 c. fair
.5 d. poor
.3 e. very poor
0 f. don't know
2.4 Missing Data
11.6 Skip

27. Who had input into determining the goals, objectives, and activities listed on your training plan (performance objectives)? (Mark all that apply.)

a. college coordinator/instructor
b. work-site supervisor
c. vocational instructor(s)
d. student

4.6	ABCD	.3	BC
2.2	ABC	6.5	BD
18.9	ABD	10.0	B
7.3	AB	2.4	CD
1.1	ACD	2.4	C
.8	AC	7.6	D
4.6	AD	1.9	Missing Data
17.0	A		
.8	BCD	11.6	Skip

28. When was your training plan (performance objectives) prepared?

22.4 a. prior to start of the semester
34.9 b. first week of the semester
14.3 c. the second week
8.4 d. the third week
3.8 e. the fourth week
1.9 f. the fifth week or later
2.7 Missing Data
11.6 Skip

29. To your knowledge, how many times during the semester/quarter does the coordinator visit your training station?

4.9 a. 4 or more times
7.0 b. 3 times
40.8 c. 2 times
34.9 d. 1 time
3.8 e. never (If never, skip to # 32.)
7.0 f. don't know
1.6 Missing Data

30. How often does the coordinator discuss with you the results of his/her visit to your work site?

36.0 a. always
16.5 b. usually
19.2 c. occasionally
10.5 d. seldom
11.6 e. never
2.4 Missing Data
3.8 Skip

31. How valuable do you consider the coordinator's visit to your work station?

31.4 a. very valuable
38.1 b. valuable
20.3 c. fairly valuable
3.2 d. of little value
1.6 e. of no value
1.6 Missing Data
3.8 Skip

32. How often during the semester/quarter does your work-site supervisor have a conference with you to discuss your training plan (performance objectives) goals?

9.2 a. 6 times or more
13.5 b. 4-5 times
34.8 c. 2-3 times
17.6 d. 1 time
21.9 e. never (If never, skip to # 35.)
3.0 Missing Data

33. How often does your work-site supervisor provide evaluation of training plan objectives to you?

11.4 a. always
18.3 b. often
18.4 c. occasionally
12.4 d. seldom
10.3 e. never
15.7 Missing Data
13.5 Skip

34. How valuable do you consider your conference(s) with your work-site supervisor?

23.0 a. extremely valuable
34.9 b. highly valuable
15.4 c. somewhat valuable
2.4 d. seldom valuable
.5 e. never valuable
1.9 Missing Data
21.9 Skip

35. In your opinion, rate the effectiveness of cooperative education in helping you reach your vocational goal.

34.9 a. extremely effective
42.7 b. highly effective
17.6 c. somewhat effective
1.6 d. seldom effective
.8 e. never effective
2.4 Missing Data

36. In your opinion, the number of cooperative education programs at your college should be:

49.8 a. increased
43.2 b. continued at present level
.3 c. decreased
0 d. discontinued altogether
6.2 e. no opinion
.5 Missing Data

37. In your opinion, rate the quality of the content of all seminar and vocational courses related to your cooperative education program.

46.5 a. very good
41.6 b. good
8.1 c. fair
.5 d. poor
.3 e. very poor
2.2 f. no opinion
.8 Missing Data

38. In your opinion, rate the quality of coordination and instruction of cooperative education programs.

48.7	a.	very good	.3	e.	very poor
41.1	b.	good	1.6	f.	no opinion
7.0	c.	fair	.8		Missing Data
.5	d.	poor			

39. To what degree does the college encourage placement of co-op students in non-traditional jobs, i.e. females in welding programs, males in secretarial programs?

12.2	a.	always	1.9	e.	never
14.3	b.	often	53.5	f.	don't know
10.5	c.	occasionally	1.9		Missing Data
5.7	d.	seldom			

40. To what degree does your employer encourage employment of individuals in non-traditional jobs?

9.2	a.	always	7.0	e.	never
15.1	b.	often	34.4	f.	don't know
18.6	c.	occasionally	2.2		Missing Data
13.5	d.	seldom			

41. Are you classified as a special need student? (If yes, please indicate which category.)

1.4	a.	physically handicapped			
0	b.	mentally handicapped			
1.1	c.	educationally disadvantaged			
1.1	d.	limited English proficient			
94.2	e.	no (If no, stop here.)			
1.9		Missing Data			
.3		Combination of C and D			

42. To what degree do you feel that the college makes provisions for your special needs?

3.2	a.	always	.3	e.	never
4.1	b.	often	3.8	f.	don't know
2.7	c.	occasionally	85.4		Skip
.5	d.	seldom			

43. To what degree does the employer make provisions for your special need?

3.2	a.	always	.3	e.	never
3.2	b.	often	3.0	f.	don't know
3.0	c.	occasionally	85.7		Skip
1.6	d.	seldom			

In January, 1986, the coordinator of this project plans to conduct follow-up telephone interviews of selected students to verify the data collected in this survey. If you would be willing to participate, please write in your name, address, and telephone number where you can be reached in January.

A total of 370 responses were tabulated. Of these, 200 participants volunteered for the telephone follow-up interview.

NAME _____ TELEPHONE NUMBER ( ) _____

ADDRESS _____ CITY _____ STATE ___ ZIP _____

Indicates the best time you can be contacted at the number above.

☐ 8 a.m. - 12 noon ☐ 1 - 5 p.m. ☐ 5 - 7 p.m. ☐ Other _____

THANK YOU FOR TAKING YOUR VALUABLE TIME TO COMPLETE THIS QUESTIONNAIRE.

YOUR COOPERATION AND PARTICIPATION ARE GREATLY APPRECIATED.

Return by: December 20, 1985

Return to: Donna Hines

Occupational Curriculum Laboratory
ETSU Station
Commerce, TX 75428
(214) 886-5124

MEMO

OCCUPATIONAL CURRICULUM LABORATORY
EAST TEXAS STATE UNIVERSITY • Mayo Hall
Commerce, TX 75428 • 214/886-5623

Appendix N

To:

From: Donna Hines, Postsecondary Curriculum Specialist

Date: November 27, 1985

Subject: Cooperative Education Research Project

The Occupational Curriculum Laboratory is conducting a TEA-sponsored research project to evaluate the effectiveness of cooperative education programs. We have been working closely with a project advisory committee and have developed a series of questionnaires for co-op students, coordinators, and work-site supervisors to accomplish this objective. Educators and business people representing approximately 50 Texas junior/community colleges are participating in this project. Data from this project will be compiled into a final report and submitted to Texas Education Agency and the Coordinating Board, Texas College and University System. This report will be used to plan and improve cooperative education programs on a state-wide basis.

Many changes are currently underway in the Texas educational system, and others are imminent. The guidelines and demand for accountability the legislature has recently imposed on the public school system may soon be required of post-secondary institutions. We hope this project will provide verified statistical data and positive recommendations when the Governor's "Blue Ribbon Committee" investigates post-secondary vocational programs. As postsecondary educators, we need to be aware of and ready for the changes that lie ahead. I encourage you to support this cooperative education research project and other efforts to improve postsecondary vocational education programs.

Your assistance is needed for this project. Please complete the enclosed questionnaire and return it in the postage-paid envelope by December 20. Please give this your thoughtful consideration and return it promptly. Your participation and cooperation are greatly appreciated. If you have any questions, please call (214) 886-5124.

MEMO

OCCUPATIONAL CURRICULUM LABORATORY
EAST TEXAS STATE UNIVERSITY • Mayo Hall
Commerce, TX 75428 • 214/886-5623

Appendix O

To: Cooperative Education Work-site Supervisors and Coordinators

From: Donna Hines, Curriculum Specialist

Date: January 10, 1986

Subject: Cooperative Education Survey Questionnaires

On November 27, 1985, a questionnaire was mailed to you asking your opinions concerning postsecondary cooperative education. This questionnaire is part of a state-sponsored research project being conducted by the Occupational Curriculum Laboratory.

Your input is very important to this project. If you have not already filled out and returned this questionnaire, would you please do so as soon as possible. The requested return date was December 20, but because of the holidays, it has been extended to January 20. If for some reason you did not receive the questionnaire, please return this memo with your name and address.

Many changes are happening in the Texas educational system. This is an opportunity for you to have some input into one part of vocational education. Please, return your questionnaire today!

Thank you for your interest and participation in Cooperative Education.

DH/gl

Appendix P

EVALUATION SHEET
COOPERATIVE EDUCATION RESEARCH PROJECT
ANALYSIS, RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

After reviewing the enclosed sections on analysis of follow-up studies, results, conclusions, and recommendations, please summarize your evaluation by responding to the statements below. Rate each on the 1-5 scale for strongly disagree to strongly agree. Feel free to revise, edit, and proofread. Return any pages on which you have made suggestions along with this evaluation sheet by June 13, 1986.

	*Mean on 1-5 Scale	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Disagree
ANALYSIS OF FOLLOW-UP DATA						
is clearly stated	4.5	1	2	3	4	5
has accurate content	4.6	1	2	3	4	5
is relevant to the report	4.5	1	2	3	4	5
RESULTS AND ACCOMPLISHMENTS						
are clearly stated	4.4	1	2	3	4	5
have accurate content	4.4	1	2	3	4	5
are relevant to the report	4.6	1	2	3	4	5
CONCLUSIONS						
are clearly stated	4.5	1	2	3	4	5
have accurate content	4.1	1	2	3	4	5
are relevant to the report	4.4	1	2	3	4	5
RECOMMENDATIONS						
are clearly stated	4.7	1	2	3	4	5
have accurate content	4.1	1	2	3	4	5
are relevant to the report	4.6	1	2	3	4	5
.. Review the current status of cooperative education in Texas postsecondary institutions and define its goals and objectives.						
is clearly stated	4.4	1	2	3	4	5
has accurate content	3.8	1	2	3	4	5
is relevant to the project	4.4	1	2	3	4	5
should be included as a recommendation	4.0	1	2	3	4	5

*Results of evaluation not included, of course, on the original document.

.... Establish state guidelines to provide procedures which will facilitate uniform, minimal standards for postsecondary cooperative education. Allowances must be made for individual program needs.

is clearly stated	4.5	1 2 3 4 5
has accurate content	4.1	1 2 3 4 5
is relevant to the project	4.5	1 2 3 4 5
should be included as a recommendation	4.1	1 2 3 4 5

.... If guidelines are developed they should include specific reference to the following components:

1. definition, selection, and supervision of the training station

2. the preparation, implementation, and evaluation of student training plans.

3. the inclusion of a seminar class

4. methods of evaluating students' cooperative education work experience and training plan objectives

5. the coordinator's responsibilities toward the student, program, and supervisor

6. the supervisor's responsibilities toward the student, program, and coordinator

7. the maximum number of college credit hours awarded for cooperative education work experience in a two-year degree program

8. the number of work experience hours required to earn cooperative education credits

is clearly stated	4.5	1 2 3 4 5
has accurate content	4.3	1 2 3 4 5
is relevant to the project	4.6	1 2 3 4 5
should be included as a recommendation	4.2	1 2 3 4 5

.... Improve means of communications among cooperative education participants.

is clearly stated	4.4	1 2 3 4 5
has accurate content	4.1	1 2 3 4 5
is relevant to the project	4.5	1 2 3 4 5
should be included as a recommendation	4.4	1 2 3 4 5

.... Modify existing vocational follow-up studies to identify and report data concerning students enrolled in cooperative education components.

is clearly stated	4.2	1 2 3 4 5
has accurate content	4.2	1 2 3 4 5
is relevant to the project	4.4	1 2 3 4 5
should be included as a recommendation	4.3	1 2 3 4 5

COMMENTS: _____

_____

_____

_____

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_____

FUTURE ADVISORY COMMITTEES

Would you be willing to serve on an advisory committee for future projects?

YES NO

NAME _____ DATE _____

Thank you for your participation on the Project Advisory Committee for the COOPERATIVE EDUCATION RESEARCH PROJECT

RETURN EVALUATION TO: DONNA HINES ON OR BEFORE JUNE 13, 1986
Occupational Curriculum Lab
ETSU Station
Commerce, TX 75428
(214) 886-5124